Water Resources Data California Water Year 1993

Volume 2. Pacific Slope Basins from Arroyo Grande to Oregon State Line except Central Valley

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-93-2
Prepared in cooperation with the California Department of Water Resources and with other agencies

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Vol 2

CALENDAR FOR WATER YEAR 1993

1992

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Water Resources Data California Water Year 1993

Volume 2. Pacific Slope Basins from Arroyo Grande to Oregon State Line except Central Valley

by J.R. Palmer, M.F. Friebel, L.F. Trujillo, and K.L. Markham

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-93-2
Prepared in cooperation with the California Department of Water Resources and with other agencies

U.S. DEPARTMENT OF THE INTERIOR

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2800 Cottage Way
Sacramento, CA 95825

1994

PREFACE

This volume of the annual hydrologic data report of California is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and water quality provide the hydrologic information needed by Federal, State, and local agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for California are contained in five volumes:

Volume 1. Southern Great Basin from Mexican Border to Mono Lake Basin and Pacific Slope Basins from the Tijuana River to Santa Maria River

Volume 2. Pacific Slope Basins from Arroyo Grande to Oregon State Line except Central Valley

Volume 3. Southern Central Valley Basins and The Great Basin from Walker River to Truckee River

Volume 4. Northern Central Valley Basins and The Great Basin from Honey Lake Basin to Oregon State Line

Volume 5. Ground-water data

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to U.S. Geological Survey policy and established guidelines, the individuals contributing significantly to the collection, processing, and tabulation of the data are given on page V.

This report was prepared in cooperation with the California Department of Water Resources and with other agencies, under the general supervision of Michael V. Shulters, District Chief, California.

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15. Supplementary Notes
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16. Abstract (Limit: 200 words)

Water resources data for the 1993 water year for California consist of records of stage, discharge, and water quality of streams; stage and contents in lakes and reservoirs; and water levels and water quality in wells. Volume 2 contains discharge records for 119 streamflow-gaging stations, 1 low-flow partial-record streamflow station, and 6 miscellaneous measurement stations; stage and contents records for 6 lakes and reservoirs; precipitation records for 3 stations; and water-quality records for 31 streamflow-gaging stations. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and with other agencies.

17. Document Analysis a. Descriptors
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SURFACE-WATER AND WATER-QUALITY STATIONS,
IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

[Letters after station name designate type of data: (d), discharge; (l), elevation, gage heights, or contents;(c), chemical; (b), biological; (p), precipitation; (g), gage height; (t), water temperature; and (s), sediment]

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DISCONTINUED GAGING STATIONS

The following continuous-record streamflow stations in California have been discontinued or converted to partial-record stations. Daily records were collected and are stored in WATSTORE for the period of record shown for each station.

Station No.	Station name	Drainage area (mi^2)	Period of record
11141150	Arroyo Grande above Phoenix Creek, near Arroyo Grande	13.4	1967-92
11141160	Wittenberg Creek near Arroyo Grande	3.11	1967-75
11141300	Arroyo Grande near Arroyo Grande	68.3	1958-66
11141400	Tar Spring Creek near Arroyo Grande	18.2	1968-79
11141500	Arroyo Grande at Arroyo Grande	102	1940-86
11141600	Los Berros Creek near Nipomo	15	1968-78
11142080	Morro Creek at Morro Bay	24	1971-78
11142100	Toro Creek near Morro Bay	18	1971-78
11142200	Santa Rosa Creek near Cambria	12.5	1957-72
11142240	Perry Creek at Cambria	22.9	1988-89
11142300	San Simeon Creek near Cambria	26.3	1988-89
11142500	Arroyo de la Cruz near San Simeon	41.2	1951-79
11142550	San Carpoforo Creek near San Simeon	34.6	1978
11142800	Rat Creek near Lucia	.82	1961-63
11143300	Arroyo del Rey at Del Rey Oaks	13.8	1967-78
11143500	Salinas River near Pozo	70.3	1943-83
11144000	Toro Creek near Pozo	9.56	1961-69, 1972-83
11144200	Salsipuedes Creek near Pozo	5.91	1970-83
11144600	Salinas River below Salinas Dam, near Pozo	112	1974-86
11145000	Salinas River above Pilitas Creek, near Santa Margarita	114	1942-75
11145500	Salinas River near Santa Margarita	149	1922, 1932-49
11147000	Jack Creek near Templeton	25.3	1950-78
11147040	Santa Rita Creek Tributary near Templeton	2.95	1967-72
11147600	Huerhuero Creek near Creston	101	1959-72
11147700	Cholame Creek Tributary near Cholame	9.26	1959-65
11147800	Cholame Creek near Shandon	227	1959-72
11148000	Estrella Creek near Paso Robles	787	1940-41
11148800	Nacimiento River near Bryson	147	1958-71
11149500	Nacimianto River near San Miguel	349	1940-57
11149650	Sulphur Springs Canyon near Jolon	5.16	1968-69
11150800	Cow Creek near San Ardo	4.8	1961-64
11151000	San Lorenzo Creek near King City	210	1940-42
11151500	San Lorenzo Creek at King City	259	1943-45
11151870	Arroyo Seco near Greenfield	113	1961-86
11152570	Alisal Creek near Salinas	14.2	1971-74
11152650	Reclamation Ditch near Salinas	53.2	1971-86
11152900	Cedar Creek near Bell Station	12.8	1962-82
11153000	Pacheco Creek near Dunneville	146	1940-82
11153040	Pacheco Creek at Dunneville	154	1982-85
11153470	Llagas Creek above Chesbro Reservoir, near Morgan Hill	9.63	1972-82
11153500	Llagas Creek near Morgan Hill	19.6	1952-71
11153700	Pajaro River near Gilroy	399	1959-82
11153790	Uvas Creek at Sveadal	2.88	1973-74
11153800	Alec Canyon near Morgan Hill	.91	1970-72
11153900	Uvas Creek above Uvas Reservoir, near Morgan Hill	21	1961-82
11154000	Uvas Creek near Morgan Hill	30.4	1931-57
11154100	Bodfish Creek near Gilroy	7.40	1960-82
11154200	Uvas Creek near Gilroy	71.2	1959-92
11154500	Pajaro River at Sargent	505	1941
11156000	San Benito River below McCoy Creek, near Hernandez	108	1950-53, 1960-63
11156450	Willow Creek Tributary near San Benito	1.24	1964-69
11156700	Pescadero Creek near Paicines	38.3	1959-70
11157500	Tres Pinos Creek near Tres Pinos	206	1941-83
11158500	San Benito River near Hollister	586	1950-83
11158900	Pescadero Creek near Chittenden	10.2	1970-81
11159150	Corralitos Creek near Corralitos	10.6	1958-72
11159400	Green Valley Creek near Corralitos	7.05	1964-67
11159500	Pajaro River at Watsonville	1,272	1912-13, 1972-73
11159690	Aptos Creek near Aptos	10.2	1972-85
11159700	Aptos Creek at Aptos	12.2	1959-72
11159800	West Branch Soquel Creek near Soquel	12.2	1959-72
11159940	Soquel Creek near Soquel	32.0	1969-72
11160020	San Lorenzo River near Boulder Creek	6.17	1968-93
11160060	Bear Creek at Boulder Creek	16.0	1977-93
11160070	Boulder Creek at Boulder Creek	11.3	1976-93
11160200	Newell Creek at Ben Lomond	8.98	1958-60
11160300	Zayante Creek at Zayante	11.1	1957-93
11161500	Branciforte Creek at Santa Cruz	17.3	1940-43, 1952-68
11161570	Majors Creek near Santa Cruz	3.77	1970-76
11161590	Laguna Creek near Davenport	3.07	1970-76
11161800	San Vicente Creek near Davenport	6.07	1970-85
11161900	Scott Creek above Little Creek, near Davenport	25.1	1959-73
11162000	Scott Creek near Davenport	27.3	1937, 1939-41
11162540	Butano Creek near Pescadero	18.3	1962-74

DISCONTINUED GAGING STATIONS--Continued

Station No.	Station name	Drainage area (mi^2)	Period of record
11162600	Purisima Creek near Half Moon Bay	4.83	1959-69
11162722	Spruce Branch at South San Francisco	.70	1965-69
11162900	Sharon Creek near Menlo Park	0.38	1959-69
11162940	San Francisquito Creek below Ladera Dam site, near Stanford University	28.5	1962-70
11162950	San Francisquito Creek Tributery neer Stanford University	.24	1959-64
11163000	Los Trancos Canal near Stanford University	--	1931-41
11163200	Los Trancos Creek Tributary near Stanford University	.42	1959-66
11163500	Los Trancos Creek at Stanford University	7.46	1931-41
11164000	Lagunita Canal at Stanford University	--	1931-41
11165500	San Francisquito Creek at Palo Alto	40.8	1931-41
11166500	Stevens Creek near Cupertino	18.1	1931-59
11166575	Permanenta Creek near Monte Vista	3.86	1984-87
11166578	West Fork Permanante Creek neer Monte Vista	2.98	1984-87
11167000	Alamitos Creek near Edenvale	34.5	1930-58
11167660	Rosa Creek at San Jose	5.70	1962-70
11167700	Ross Creek below Jarvis Road, at San Jose	7.71	1972-74
11168500	Los Gatos Creek below Los Gatos	42.6	1945-53
11169800	Coyote Creek near Gilroy	109	1961-82
11170000	Coyote Creek near Madrone	196	1903-12, 1917-87
11170500	Coyote Creek at Coyote	204	1917-23
11171500	Coyote Creek near Edenvale	229	1917-62
11172000	Coyote Creek at San Jose	238	1917
11172100	Upper Penitencia Creek at San Jose	21.5	1962-87
11172500	Laguna Creek at Irvington	12.5	1917-19
11173000	Alameda Creek near Sunol	37.5	1912-30
11173200	Arroyo Hondo near San Jose	77.1	1969-81
11173500	Calaveras Creek near Sunol	98.7	1898-1908, 1911-30
11174000	San Antonio Creek near Sunol	37.0	1912-30, 1961-65
11174500	Alamo Creek at Dublin	38.7	1915-20
11174600	Alamo Canal near Pleasanton	40.8	1978-83
11175000	Tassajero Creek near Pleasanton	26.8	1915-19, 1922-30
11176090	Arroyo Mocho at Livermore	50.8	1984-86
11176100	Arroyo Las Positas above Livermore	7.82	1972-74
11176140	Altamont Creek near Livermore	13.4	1979-80
11176145	Arroyo Las Positas at Livermore	53.3	1980-86
11176150	Arroyo Las Positas near Livermore	64.6	1912-19, 1922, 1924-30
11176180	Arroyo Las Positas at El Charro Road, near Pleasanton	75.0	1978-83
11176200	Arroyo Mocho near Pleasanton	142	1962-86
11176300	Tassajara Creek near Pleasanton	26.8	1979-83
11176600	Arroyo Valle at Pleasanton	171	1958-86
11179500	Crandal Slough near Centerville	--	1917-18
11180000	Alameda Creek near Sunol	639	1917-19
11180750	Alameda Creek at Union City	653	1959-73
11181000	San Lorenzo Creek at Hayward	37.5	1940, 1947-83
11181004	Castro Valley Creek at Castro Valley	.98	1979-80
11181006	Castro Valley Creek at Knox Street, at Castro Valley	2.20	1978-80, 1989-93
11181300	Peralta Creek at Oakland	1.67	1973
11181330	Temescal Creek above Lake Temeacal, at Oakland	1.74	1979-81, 1989-93
11181335	Caldecott Creek at Lake Temescal, at Oakland	.83	1980-81
11181400	Wildcat Creek at Richmond	8.67	1964-75
11182030	Rhem Creek at San Pablo	1.49	1961-90
11182100	Pinole Creek at Pinole	10.0	1939-70, 1972-77
11182400	Arroyo del Hambre at Martinez	15.1	1965-82
11182800	San Ramon Creek near Walnut Creek	47.9	1973-92
11183000	San Ramon Creek at Walnut Creek	50.8	1953-73
11183500	Walnut Creek at Walnut Creek	79.2	1953-68
11183600	Walnut Creek at Concord	85.2	1968-92
11183700	Little Pine Creek near Alamo	1.22	1975-89
11184000	Galindo Creek at Concord	7.74	1955-58
11184500	Pine Creek at Concord	28.3	1953-60
11455900	Napa River at Calistoga	21.9	1976-83
11455950	Sulphur Creek near St. Helena	4.50	1966-67
11456500	Conn Creek near Oakville	55.4	1930-59, 1971-75
11457000	Dry Creek near Nepe	17.4	1951-66
11457500	Dry Creek near Yountville	18.7	1941
11458100	Milliken Creek near Napa	17.3	1971-83
11458200	Redwood Creek near Napa	9.79	1958-73
11458300	Napa Creek at Napa	14.9	1971-83
11458350	Tulucay Creek at Napa	12.6	1972-83
11458500	Sonoma Creek at Agua Caliente	58.4	1955-81
11459000	Petaluma River at Petaluma	30.9	1949-63
11459300	San Antonio Creek near Petaluma	28.9	1975-81
11459800	San Rafael Creek at San Rafael (REVISED RECORDS IN WDR CA-91-2)	1.24	1972-76
11459830	Irwin Creek at San Rafael	--	1972-76
11460000	Corte Madera Creek at Ross	18.1	1951-93

DISCONTINUED GAGING STATIONS--Continued

Station No.	Station name	Drainage area (mi^2)	Period of record
11460100	Arroyo Corte Madera del Presidio at Mill Valley	4.69	1966-73, 1975-86
11460160	Morses Creek at Bolines	.70	1967-69
11460500	Nicasio Creek at Point Reyes Station	36.6	1954-60
11460800	Walker Creek near Tomales	40.1	1959-84
11460920	Salmon Creek at Bodega	15.7	1962-75
11460940	Russian River near Redwood Valley	14.1	1963-68
11461400	East Fork Russian River Tributary near Potter Valley	.15	1959-61
11462700	Feliz Creek near Hopland	31.3	1958-66
11463160	Big Sulphur Creek near Middletown	2.89	1978-79
11463500	Russian River at Geyserville	655	1911-13
11463900	Meacama Creek near Kellogg	43.4	1961-81
11463940	Franz Creek near Kellogg	15.7	1964-68
11464050	Dry Creek Tributary near Hopland	1.19	1968-69
11464400	Dry Creek near Yorkville	56.0	1974-83
11464860	Warm Springs Creek near Asti	12.2	1973-83
11465050	Dutcher Creek near Asti	2.24	1973
11465150	Pena Creek near Geyserville	22.3	1979-90
11465800	Santa Rosa Creek near Santa Rosa	12.5	1959-70
11466200	Santa Rosa Creek at Santa Rosa	56.6	1940-41
11467200	Austin Creek near Cazadero	63.1	1959-66
11467510	South Fork Gualala River near the Sea Ranch	161	1991-92
11467600	Garcia River near Point Arena	98.5	1962-83
11467800	Rancheria Creek near Boonville	65.6	1959-68
11467850	Soda Creek Tributary near Boonville	1.53	1965-68
11468010	Albion River near Comptche	14.4	1961-69
11468070	South Fork Big River near Comptche	36.2	1960-71
11468150	Warner Creek near Fort Bragg	.61	1969
11468540	Pudding Creek near Fort Bragg	12.5	1964-71
11468850	Dunn Creek near Rockport	1.88	1961-64
11468990	Honeydew Creek near Honeydew	14.9	1973-77
11469500	North Fork Mattole River at Petrolia	37.6	1951-57
11469800	Cold Creek Tributary near Elk Creek	.81	1970
11471105	Potter Valley Irrigation Canal E5 near Potter Valley	--	1976-83, 1988-89
11471106	Potter Valley Irrigation Canal E6 near Potter Valley	--	1976-83, 1988-89
11471800	Tomki Creek near Willits	43.4	1963-70
11472000	Eel River at Hearst	466	1911-13
11472500	Eel River above Dos Rios	705	1951-65
11472800	Middle Fork Eel River above Black Butte River, near Covelo	204	1968-70
11472900	Black Butte River near Covelo	162	1959-75
11473000	Middle Fork Eel River below Black Butte River, near Covelo	367	1952-67
11473100	Williams Creek near Covelo	30.4	1962-69
11473500	Middle Fork Eel River near Covelo	406	1912-18, 1920-22
11473530	Mill Creek below Alder Creek, near Covelo	17.1	1962-65
11473600	Short Creek near Covelo	15.2	1959-69
11473700	Mill Creek near Covelo	95.6	1956-71
11473800	Elk Creek near Hearst	84.1	1964-73
11473980	Goforth Creek at Dos Rios	3.83	1966-68
11474000	Eel River below Dos Rios	1,484	1912-13, 1952-66
11474400	Hulls Creek near Covelo	25.9	1962-64
11475500	South Fork Eel River near Branscomb	43.9	1947-70
11475700	Tenmile Creek near Laytonville	50.3	1958-74
11475940	East Branch South Fork Eel River near Garberville	74.3	1966-72
11476000	South Fork Eel River at Garberville	468	1912-13, 1940
11476700	Larabee Creek near Holmes	84.1	1960-65
11477500	Van Duzen River near Dinsmore	85.2	1954-58, 1964-74
11477700	Little Van Duzen River near Bridgeville	36.2	1958-67
11478000	Van Duzen River at Bridgeville	202	1912-13, 1940-51
11478400	Van Duzen River Tributary near Bridgeville	.71	1969
11479000	Yager Creek near Carlotta	127	1954-55, 1957-60, 1966-72
11479500	Yager Creek at Carlotta	134	1912-13
11479700	Elk River near Falk	44.2	1958-67
11480000	Jacoby Creek near Freshwater	5.80	1955-64
11480750	Mad River near Kneeland	351	1966-74
11480800	North Fork Mad River near Korbel	40.4	1958-64, 1973-74
11481500	Redwood Creek near Blue Lake	67.7	1953-58, 1972-93
11482000	Redwood Creek near Korbel	83.0	1912-13
11482110	Lacks Creek near Orick	16.9	1980-91
11482120	Redwood Creek above Panther Creek, near Orick	150	1981-89
11482125	Panther Creek near Orick	6.07	1979-91
11482130	Coyote Creek near Orick	7.78	1980-82, 1984-89
11482200	Redwood Creek at South Park Boundary, near Orick	185	1971-81
11482468	Little Lost Man Creek at Site No. 2, near Orick	3.46	1974-82, 1985-89
11488700	Dry Lake Tributary at Perez	1.74	1963-66
11489500	Antelope Creek near Tennant	18.6	1953-79
11490000	Antelope Creek near Macdoel	30	1922
11490500	Butte Creek near Macdoel	178	1922, 1952-60

DISCONTINUED GAGING STATIONS--Continued

Station No.	Station name	Drainage area (mi^2)	Period of record
11512000	Fall Creek at Copco	14.6	1933-59
11512500	Klamath River below Fall Creek, near Copco	4,317	1924-61
11516600	Cottonwood Creek at Bornbrook	89.8	1965-71
11516900	Little Shasta River near Montague	48.2	1958-78
11517000	Shasta River near Montague	673	1912-13, 1917-21, 1924-33
11517800	Beaver Creek near Klamath River	106	1960-65
11517900	East Fork Scott River below Houston Creek, near Callahan	19.7	1970-73
11517950	East Fork Scott River above Kangeroo Creek, near Callahan	49.5	1970-73
11518000	East Fork Scott River near Callahan	57.5	1911
11518050	East Fork Scott River at Callahan	110	1960-74
11518200	South Fork Scott River near Callahan	41.5	1959-60
11518300	Sugar Creek near Callahan	12.0	1957-60
11518310	Cedar Gulch near Callahan	.99	1966-73
11518600	Moffett Creek near Fort Jones	69.8	1959-67
11519000	Shackleford Creek near Muggins ville	17.7	1957-60
11520000	Scott River near Scott Bar	804	1912-13
11521000	Klamath River near Happy Camp	7,024	1912
11522200	Elk Creek near Happy Camp	90.4	1957-64
11522260	Ti Creek near Somes Bar	9.46	1961-64
11522300	South Fork Salmon River near forks of Selmon	252	1957-65
11522400	North Fork Salmon River near forks of Salmon	203	1959-64
11523030	Red Cap Creek near Orleans	56.1	1958-65
11523050	Bluff Creek near Weitchpec	74.6	1959-65
11523700	Coffee Creek near Trinity Center	107	1911-13, 1958-66
11524000	Trinity River near Trinity Center	300	1911-13
11525655	Trinity River below Limekiln Gulch, near Douglas City	812	1981-91
11525800	Weaver Creek near Douglas City	48.4	1959-69
11525900	Browns Creek near Douglas City	71.6	1957-67
11526000	Trinity River near Douglas City	1,014	1944-51
11527400	New River at Denny	173	1928-29, 1959-69
11528000	Trinity River near China Flat	1,733	1912-13
11528100	South Fork Trinity River at Forest Glen	208	1960-65
11528200	South Fork Trinity River near Hyampom	342	1956-65
11528400	Hayfork Creek near Hayfork	86.7	1957-65
11528440	Big Creek near Heyfork	27.1	1961, 1963-67
11529500	South Fork Trinity River near China Flat	932	1912-13
11529800	Willow Creek near Willow Creek	40.9	1959-74
11530150	Mareep Creek near Weitchpec	3.56	1967-69
11531000	Middle Fork Smith River at Gasquet	131	1912-17, 1959-65
11531500	North Fork Smith River at Gasquet	158	1912-13
11532700	Rowdy Creek at Smith River	33.3	1957-62
11533000	Lopez Creek near Smith River	.92	1962-66

DISCONTINUED LAKES AND RESERVOIRS

The following continuous-record lake stations in California have been discontinued. Daily records were collected and are stored in WATSTORE for the period of record shown for each location.

Station No.	Station name	Drainage area (mi^2)	Period of record
11144500	Santa Margarita Lake near Pozo	112	1945-86
11166740	Calero Reservoir near New Almaden	6.93	1936-85
11461800	Lake Mendocino near Ukiah	105	1966-90
11464900	Lake Sonoma near Geyserville	130	1984-90

DISCONTINUED WATER-QUALITY STATIONS

The following continuous water-quality stations in California have been discontinued. Daily records were collected and are stored in WATSTORE for the period of record shown for each location.

Station No.	Station name	Drainage area (mi^2)	Type of record	Period of record
11141150	Arroyo Grande above Phoenix Creek, near Arroyo Grande	13.4	WQ,S,T	1967-73, 1977, 1990

DISCONTINUED WATER-QUALITY STATIONS--Continued

Station No.	Station name	Drainage area (mi^2)	Type of record	Period of record
11141280	Lopez Creek near Arroyo Grande	20.9	WQ,S,T	1968-72, 1977
11142200	Santa Rosa Creek near Cambria	12.5	WQ	1988-89
11142240	Perry Creek at Cambria	22.9	WQ	1988-89
11142300	San Simeon Creek near Cambria	26.3	WQ	1988-89
11143000	Big Sur River near Big Sur	46.5	WQ,T	1966-79
11143250	Carmel River near Carmel	246	WQ	1954-66
11147040	Santa Rita Creek Tributary near Templeton	2.95	T	1968-72
11147070	Santa Rita Creek near Templeton	18.2	S	1968-72
11147500	Salinas River at Paso Robles	390	WQ,S	1963-66, 1990
11148500	Estrella River near Estrella	922	S	1990
11148800	Nacimiento River near Bryson	147	T,S	1959, 1961-71
11148900	Nacimiento River below Sapaque Creek, near Bryson	162	T	1972-73
11149400	Nacimiento River below Nacimento Dam, near Bradley	329	WQ	1963-66
11149700	San Antonio River at Sam Jones Bridge	204	T,S	1959, 1961-62, 1964-65
11149900	San Antonio River near Lockwood	217	T	1966-73
11150000	San Antonio River at Pleyto	277	T,S	1962, 1965
11150500	Salinas River near Bradley	2,535	WQ,S	1950, 1958, 1962-66, 1972-75, 1977, 1980-81, 1990
11151700	Salinas River at Soledad	3,563	WQ,S	1972-75, 1977, 1990, 1992
11151870	Arroyo Seco near Greenfield	113	S	1963-75, 1978-84
11152300	Salinas River near Chualar	4,042	B,C,T	1977-81
11152500	Salinas River near Spreckels	4,156	WQ,B,C, T,S	1950-54, 1958-79, 1986, 1990
11152540	El Toro Creek near Spreckels	31.9	S	1986, 1990
11153470	Llagas Creek above Chesbro Reservoir, near Morgan Hill	9.63	T	1972-78
11153500	Llagas Creek near Norgan Hill	19.6	WQ,S	1979-91
11153555	Llagas Creek at San Martin	28.2	WQ,S	1980-87, 1989-91
11153900	Uvas Creek above Uvas Reservoir, near Morgan Hill	21	T,S	1966-76
11159000	Pajaro River at Chittendan	1,186	WQ,B,C T,S	1952-92
11159200	Corralitos Creek at Freedom	27.8	S	1976-77, 1980,81
11160000	Soquel Creek at Soquel	40.2	WQ,T,S	1952-79, 1990-93
11160020	San Lorenzo River near Boulder Creek	6.17	C,S	1973-77, 1980-81
11160070	Boulder Creek at Boulder Creek	11.3	WQ,S	1973-77
11160300	Zayante Creek at Zayante	11.1	WQ,S,T	1970-74, 1976-77
11160500	San Lorenzo River at Big Trees	106	WQ,S,T	1906-07, 1952-82, 1986, 1989-93
11162500	Pesadero Creek near Pesadero	45.9	WQ,S,T	1965-80, 1986, 1989-93
11162570	San Gregorio Creek at San Gregorio	50.9	S	1986, 1989-93
11162630	Pilarcitos Creek at Half Moon Bay	27.1	S	1990
11162720	Colma Creek at South San Francisco	10.8	S	1966-76
11162722	Spruce Branch at South San Francisco	1.68	S	1965-69
11166575	Permanente Creek near Monte Vista	3.86	T,S	1984-87
11166578	West Fork Permanente Creek near Monte Vista	2.98	T,S	1985-86
11166710	Arroyo Calero above Calero Reservoir, near New Almaden	3.14	WQ	1986-90
11166900	Alamitos Creek near New Almaden	31.8	WQ,S	1985-91
11167500	Guadalupe Creek at Guadalupe	12.8	WQ,S	1980-91
11168000	Los Gatos Creek at Los Gatos	39.0	WQ	1952-66, 1980-87, 1989-91
11168800	Los Gatos Creek at Lincoln Avenue, at San Jose	48.4	WQ	1980-87, 1989-91
11169000	Guadalupe River at San Jose	146	WQ,S	1979-91
11169500	Saratoga Creek at Saratoga	9.22	WQ	1972-73
11169580	Calabazas Creek Tributary No. 1 at Mt. Eden Road	.37	T	1973-77
11169600	Prospect Creek above Saratoga Golf Course, near Saratoga	.27	T	1973-75
11169616	Calabazas Creek at Rainbow Drive, near Cupertino	3.98	T	1974-77
11169800	Coyote Creek near Gilroy	109	T,S	1965-76
11169970	Coyote Creek below Leroy Anderson Dam, near Madrone	195	WQ,S	1980-88, 1990-91
11171500	Coyote Creek near Edenvale	229	WQ,S	1979-88, 1990-91
11174600	Alamo Canal near Pleasanton	40.8	C	1979-83
11176000	Arroyo Mocho near Livermore	38.2	C	1979-83
11176140	Altamont Creek near Livermore	13.4	C	1979-80
11176145	Arroyo Las Positas at Livermore	53.3	C	1980-83
11176180	Arroyo Las Positas at El Charro, near Pleasanton	75.0	C	1980-83
11176200	Arroyo Mocho near Pleasanton	142	C	1980-84
11176300	Tassajara Creek near Pleasanton	26.8	C	1979-83
11176350	Arroyo de la Laguna above Arroyo Valle, near Pleasanton	224	T,S	1975-78
11176400	Arroyo Valle below Lang Canal, near Livermore	130	S	1963, 1965
11176500	Arroyo Valle near Livermore	147	S	1966-67
11176600	Arroyo Valle at Pleasanton	171	T,S	1975-79
11176900	Arroyo de la Laguna above bridge, near Pleasanton	--	T	1960-63
11177000	Arroyo de la Laguna near Pleasanton	405	C	1979-83
11177200	Vallecitos Creek at Sunol	7.48	C	1975-86
11179000	Alameda Creek near Niles	633	WQ,S,T,C	1906, 1952-73, 1975-93

DISCONTINUED WATER-QUALITY STATIONS--Continued

Station No.	Station name	Drainage area (mi^2)	Type of record	Period of record
11180940	Cull Creek Tributary No. 4 above Cull Creek Reservoir, near Castro Valley	.45	S	1981, 1986, 1989, 1992
11180965	Cull Creek below Cull Creek Dam, near Castro Valley	6.37	T,S	1979
11181040	San Lorenzo Creek at San Lorenzo	44.6	T,S	1989-93
11181330	Temescal Creek above Lake Temescal, at Oakland	1.74	WQ,S	1979-81
11181390	Wildcat Creek at Vale Road, at Richmond	7.79	S	1978-80
11456000	Nepe River near St. Helena	81.4	S	1961-62
11458000	Napa River near Napa	218	WQ,C,S,T	1971, 1973-93, 1977-93
11460000	Corte Madera Creek at Rosa	18.1	S	1978-80
11460015	Corte Madera Creek at College Avenue, at Kentfield	18.2	S	1988-89
11460170	Pine Creek at Bolinas	7.83	T,S	1967, 1969-70
11460600	Lagunitas Creek near Point Reyes	81.7	T,S	1989-90
11460920	Salmon Creek at Bodega	15.7	T,S	1964-75
11461000	Russian River near Ukieh	100	WQ,S,B,T	1964-68, 1977-79, 1990-92
11461500	East Fork Russian River near Calpella	92.2	S	1965-68
11462000	East Fork Russian River near Ukiah	105	WQ,S,B	1953-55, 1964-68, 1973-82
11462500	Russian River near Hopland	362	WQ,T,S	1951-79, 1989-93
11463000	Russian River near Cloverdale	503	S	1964-68
11463160	Big Sulphur Creek near Middletown	2.89	T,S	1978-79
11463200	Big Sulphur Creek near Cloverdale	85.5	S	1967-68
11464000	Russian River near Healdsburg	793	WQ	1951-66, 1980
11464500	Dry Creek near Cloverdale	87.8	T	1965-79
11465150	Pene Creek near Geyserville	22.3	S	1979-86
11465200	Dry Creek near Geyserville	162	WQ,S,T	1964-86
11467000	Russian River near Guernevilla	1,338	C,B	1974-81
11467600	Garcia River near Point Arena	98.5	T	1964-78
11468600	Middle Fork Ten Mile River near Fort Bragg	32.9	T	1965-73
11471000	Potter Valley Powerhouse intake near Potter Valley	--	S	1964-68
11472150	Eel River near Dos Rios	528	S	1967-77
11472200	Outlet Creek near Longvale	161	S	1967-70
11472500	Eel River above Dos Rios	705	T,S	1959, 1962-82
11472800	Middle Fork Eel River above Black Butte River, near Covelo	204	T,S	1966, 1969-70
11472900	Black Butte River near Covelo	162	T,S	1964-66, 1968-75
11473000	Middle Fork Eel River below Black Butte River, neer Covelo	367	T,S	1961-63, 1968-79
11473800	Elk Creek near Hearst	84.1	T	1965-73
11473900	Middle Fork Eel River near Dos Rios	745	C,S	1967-69
11474500	North Fork Eel River near Mina	248	T,S	1973-75
11474700	Chamise Creek near Island Mountain	22.6	T,S	1973-75
11475000	Eel River at Fort Seward	2,107	S	1966-76
11475100	Dobbyn Creek near Fort Seward	61.4	T,S	1973-76
11475500	South Fork Eel River neer Branscomb	43.9	T,S	1961-70
11475560	Elder Creek near Branscomb	6.50	T	1968-79
11476500	South Fork Eel River near Miranda	537	S	1981
11476600	Bull Creek near Weott	28.1	S	1960-80
11477000	Eel River at Scotia	3,112	B,C,T	1958-82
11477500	Van Duzen River near Dinsmore	85.2	T	1966-74
11477700	Little Van Duzen River near Bridgeville	36.2	T	1961-65
11480700	Maple Creek near Blue Lake	12.1	T	1969
11480750	Mad River near Kneeland	351	T	1966-74
11480780	Mad River near Blue Lake	393	T	1973-76
11481000	Mad River near Arcata	485	S	1960-74
11481500	Redwood Creek near Blue Lake	67.7	WQ	1974-75
11482110	Lacks Creek near Orick	16.9	C,S	1975-76, 1978-91
11482120	Redwood Creek above Panther Creek, near Orick	150	S	1988-89
11482125	Panther Creek near Orick	6.07	T,S	1979-91
11482130	Coyote Creek near Orick	7.78	T,S	1980
11482200	Redwood Creek at South Park Boundary, near Orick	185	T	1974-81
11482468	Little Lost Man Creek at Site No. 2, near Orick	3.46	WQ,S	1974-76, 1978-82, 1985-89
11482500	Redwood Creek at Orick	277	WQ	1959-66, 1973-81
11516600	Cottonwood Creek at Hornbrook	89.8	T	1965-71
11523000	Klamath River at Orleans	8,475	S	1967-79
11525500	Trinity River at Lewiston	719	WQ,T,S	1951-83
11525550	Grass Valley Creek near French Gulch	7.93	S	1985-89
11525655	Trinity River below Limekiln Gulch, near Dougles City	812	T,S	1981-91
11526500	North Fork Trinity River at Helena	151	T,S	1963
11528200	South Fork Trinity River near Hyampom	342	T	1961-65
11528500	Hayfork Creek near Hyampom	378	T	1961-74
11528700	South Fork Trinity River below Hyampom	764	S	1967-70, 1981-82
11529000	South Fork Trinity River near Salyer	898	T,S	1959-67, 1981-82
11530000	Trinity River at Hoopa	2,853	S	1960-79
11530020	Supply Creek et Hoopa	15.8	T,S	1982-85
11530300	Blue Creek near Klamath	120	T	1966-78
11530500	Klamath River near Klamath	12,100	B,C,T	1966-81

DISCONTINUED WATER-QUALITY STATIONS--Continued

Station No.	Station name	Drainage area (mi^2)	Type of record	Period of record
11532000	South Fork Smith River near Crescent City	291	T,S	1978-79
11532500	Smith River near Crescent City	614	WQ,C,B, S,T	1952-93
11532620	Mill Creek near Crescent City	28.6	T	1974-80
353339121053900	Santa Rosa Creek on Highway 1 Bridge, at Cambria	46.6	WQ	1988-89
353406121061100	Santa Rosa Creek at Windsor Boulevard, near Cambria	47.1	WQ	1988-89
353635121043101	San Simeon Creek at Palmer Flats, near Cambria	23.1	WQ	1988-89
371057121472501	Calero Reservoir at dam, near New Almaden	6.93	WQ,B	1978-79, 1984-91
375658122324000	Corte Madera Creek near College Avenue, at Kentfield, at Cross Section 0	--	S	1988-89
375701122324200	Corte Madera Creek near College Avenue, at Kentfield, at Cross Section 1	--	S	1988-89
375704122324200	Corte Madera Creek near College Avenue, at Kentfield, at Cross Section 2	--	S	1988-89
375710122324000	Corte Madera Creek near College Avenue, at Kentfield, at Cross Section 3	--	S	1990
375711122324600	Corte Madera Creek near College Avenue, at Kentfield, at Cross Section 4	--	S	1988-89
375712122325100	Corte Madera Creek near College Avenue, at Kentfield, at Cross Section 5	--	S	1988-89
375712122325200	Corte Madera Creek near College Avenue, et Kentfield, et Cross Section 6	--	S	1988-89

Type of record: WQ (Water quality); B (Biological); C (Conductivity); T (Temperature); S (Sediment).

WATER RESOURCES DATA--CALIFORNIA, WATER YEAR 1993

VOLUME 2--PACIFIC SLOPE BASINS FROM ARROYO GRANDE

TO OREGON STATE LINE EXCEPT CENTRAL VALLEY

By J.R. Palmer, M.F. Friebel, L.F. Trujillo, and K.L. Markham

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State and Federal agencies, obtains a large amount of data pertaining to the water resources of California each water year. These data, accumulated during many water years, constitute a valuable database for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the U.S. Geological Survey, the data are published annually in this report series entitled "Water Resources Data--California."

This volume of the report includes records on surface water in the State. Specifically, it contains (1) discharge records for 119 streamflow-gaging stations, 1 low-flow partial-record streamflow station, and 6 miscellaneous measurement stations; (2) stage and contents records for 6 lakes and reservoirs; (3) precipitation records for 3 stations; and (4) water-quality records for 31 streamflow-gaging stations. Records included for stream stages are only a small fraction of those obtained during the water year.

The series of annual reports for California began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format changed to include data on quantities of surface water, quality of surface and ground water, and ground-water levels. Beginning with the 1985 water year, a separate volume for ground-water levels and quality was published for California.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for California were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 10 and 11." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." These Water-Supply Papers may be consulted in public libraries of the principal cities of the United States and may be purchased from U.S. Geological Survey, Map Distribution, Box 25286, MS 306, Denver Federal Center, Denver, CO 80225.

Publications similar to this report are published annually by the U.S. Geological Survey for all States. Each report has an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CA-93-2." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Beginning with the 1990 water year, all water-data reports also will be available on Compact Disc--Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

Additional information, including current prices, for ordering specific reports may be obtained from the District Office at the address given on the back of the title page or by telephone (916) 978-4668. A limited number of CD-ROM discs will be available for purchase from U.S. Geological Survey, Earth Science Information Center, Open-File Reports Section, Box 25286, MS 517, Denver Federal Center, Denver, CO 80225.

COOPERATION

The U.S. Geological Survey and organizations of the State of California have had cooperative agreements for the systematic collection of records since 1903. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Alameda County Flood Control and Water Conservation District, Donald Labelle, Director of Public Works.
Alameda County Water District, James D. Beard, General Manager.
California Department of Boating and Waterways, William H. Ivers, Director.
California Department of Parks and Recreation, Henry R. Agonis, Director.
California Department of Water Resources, David N. Kennedy, Director.
Contra Costa County Flood Control and Water Conservation District, Milton Kubicek, Deputy Chief.

Humboldt Bay Municipal Water District, Arthur Bolli, General Manager.
Marin Municipal Water District, Ronald L. Johnson, General Manager.
Mendocino County Water Agency, Dennis Jackson, Hydrologist.
Monterey County Water Resources Agency, William Hurst, General Manager.
Monterey Peninsula Water Management District, James Cofer, General Manager.

San Benito County Water District, William Rupert, District Manager.
San Francisco Water Department, John Mullane, General Manager.
San Luis Obispo County Engineering Department, Clinton Milne, County Engineer.
San Mateo County, Robert Sans, Director of Public Works.

Santa Clara Valley Water District, Leo F. Cournoyer, Water Supply Manager.
Santa Cruz, city of, Water Department, Terry Tompkins, Deputy Director.
Santa Cruz County Flood Control and Water Conservation District, Planning Department, Ken Hart, Program Manager.
Scotts Valley Water District, Jon Sansing, General Manager.
Sonoma County Planning Department, Jim Olmsted, Assistant Planning Director.
Sonoma County Water Agency, Robert F. Beach, General Manager.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army; and National Park Service, U.S. Department of the Interior.

The following organizations aided in collecting records: Pacific Gas and Electric Company; PacifiCorp, Independent Hydro Developers, Malacha Power Project, Nelson Creek Power Company, Highland Hydro Constructors, Synergic, Inc., and STS Hydropower.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

As is common in California, streamflow varied greatly in the 1993 water year--month by month and regionally. The variations are related to differences in precipitation, temperature, topography, and geology. Runoff during the 1993 water year in the area covered by this volume was 164 percent of the 1961-90 median based on 10 representative streamflow records. Total runoff, in percent of median, at selected stations in California is shown in figure 1. Runoff ranged from 111 percent of median at Smith River near Crescent City (station 11532500) to 280 percent of median at Santa Rita Creek near Templeton (station 11147070). In figure 2, monthly mean discharge in the 1993 water year is compared with the 1961-90 median, maximum, and minimum monthly mean discharge at four representative gaging stations. In addition, a comparison of monthly precipitation in the 1993 water year and the long-term average is shown in figure 2. Annual departure from 1961-90 mean discharge for four selected gaging stations is shown in figure 3. A comparison of peak discharge for the 1993 water year with peaks for period of record for selected stations is given in table 1. A comparison of low-flow data for various years is shown in table 2.

Precipitation in the area covered by this volume was slightly above normal during the 1993 water year. Precipitation, based on seven representative raingages, was 129 percent of the long-term average. There were significant storms in December and January that produced above-average precipitation throughout the region.

Table 1. Comparison of peak discharge for 1993 water year with those for period of record for selected stations

Station No.	Station name	1993 water year		Period of record	
		Date	Peak discharge (ft^3/s)	Water year	Peak discharge (ft^3/s)
11152000	Arroyo Seco near Soledad	Jan. 1[illegible]	18,800	1958	28,300
11456000	Napa River near St. Helena	Jan. 20	7,930	1986	16,900
11477000	Eel River at Scotia	Jan. 21	290,000	1965	752,000
11532500	Smith River near Crescent City	Jan. 20	76,400	1965	228,000

Figure 1. Runoff, in percent of median, for the 1993 water year.

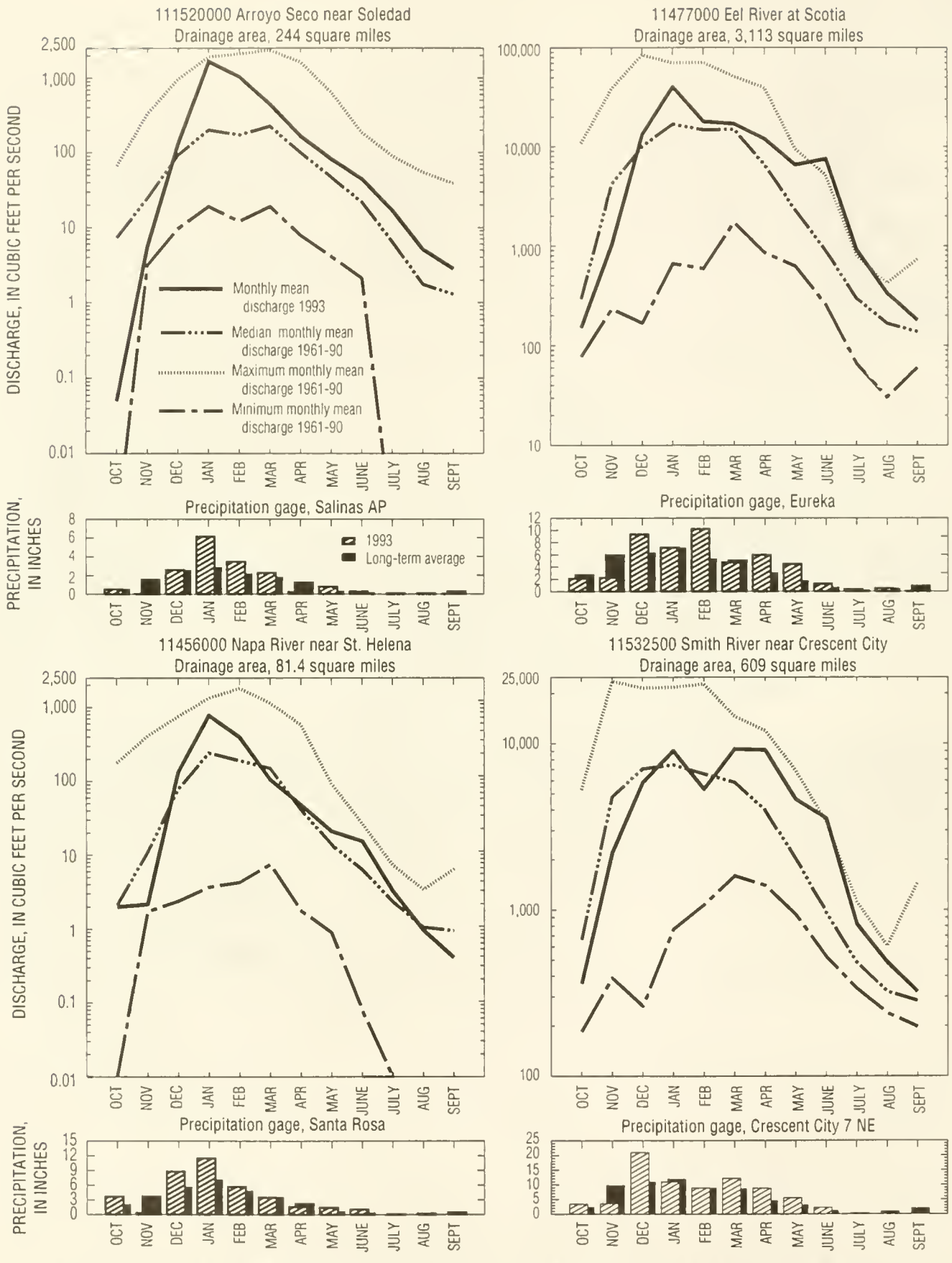

Figure 2. Discharge and precipitation during water year 1993 and long-term average at four representative gaging stations. Precipitation date from National Oceanic and Atmospheric Administration, 1993, Climatological Data, annual summary: v. 97.

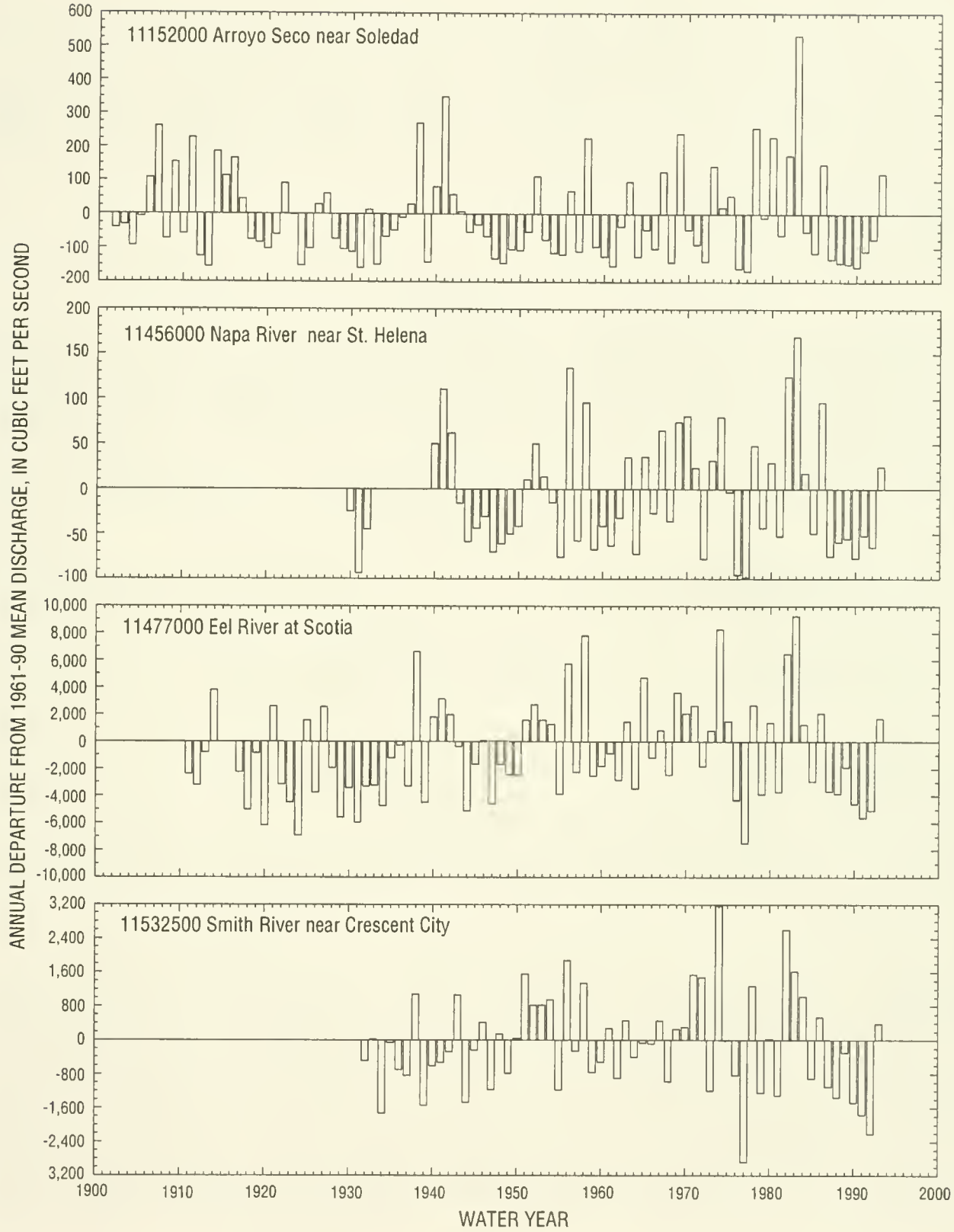

Figure 3. Annual deperture from 1961-90 meen discherge for period of record at selected gaging stations.

Table 2. Comparison of 7-dey and 1-day low flow for 1993 water yeer with 7-day, 1-day, and minimum daily flow for 30-year base period 1961-90 for selected stetions

Station No.	Station name	7-day low flow (ft^3/s) 1993 water year	7-day low flow (ft^3/s) Base period 1961-90	1-day low flow (ft^3/s) 1993 water year	1-day low flow (ft^3/s) Base period 1961-90	Period of record Water year	Period of record Minimum daily (ft^3/s)
11152000	Arroyo Seco near Soledad	0	0	0	0	Several	0
11456000	Napa River near St. Belena	.18	0	.16	0	Several	0
11477000	Eel River at Scotia	67	25	60	25	1924	12
11532500	Smith River near Crescent City	184	163	181	160	1964	160

Water Quality

Water samples collected at seven NASQAN stations and one Hydrologic Benchmark station reported in this volume were analyzed for water-quality constituents. Dissolved-solids concentretions generally decreased from the previous year and were lergest at Napa River near Nape (station 11458000), where the median concentration was 285 milligrams per liter. The smallest concentretion was in water sampled from the Smith River near Crescent City (station 11532500), where the median concentration was 54 milligrams per liter. Figure 4 shows the monthly mean dissolved-solids concentrations during water yeer 1993 compared with long-term meen dissolved-solids concentrations at two selected stations. No chemical-constituent concentretions exceeded water-quality criteria recommended by the U.S. Environmentel Protection Agency.

The lergest densities of fecel-coliform (23,500 colonies per 100 milliliters) and fecal streptococcus bacteria (36,000 colonies per 100 milliliters) were in water samples collected from Russian River near Guerneville (station 11467000).

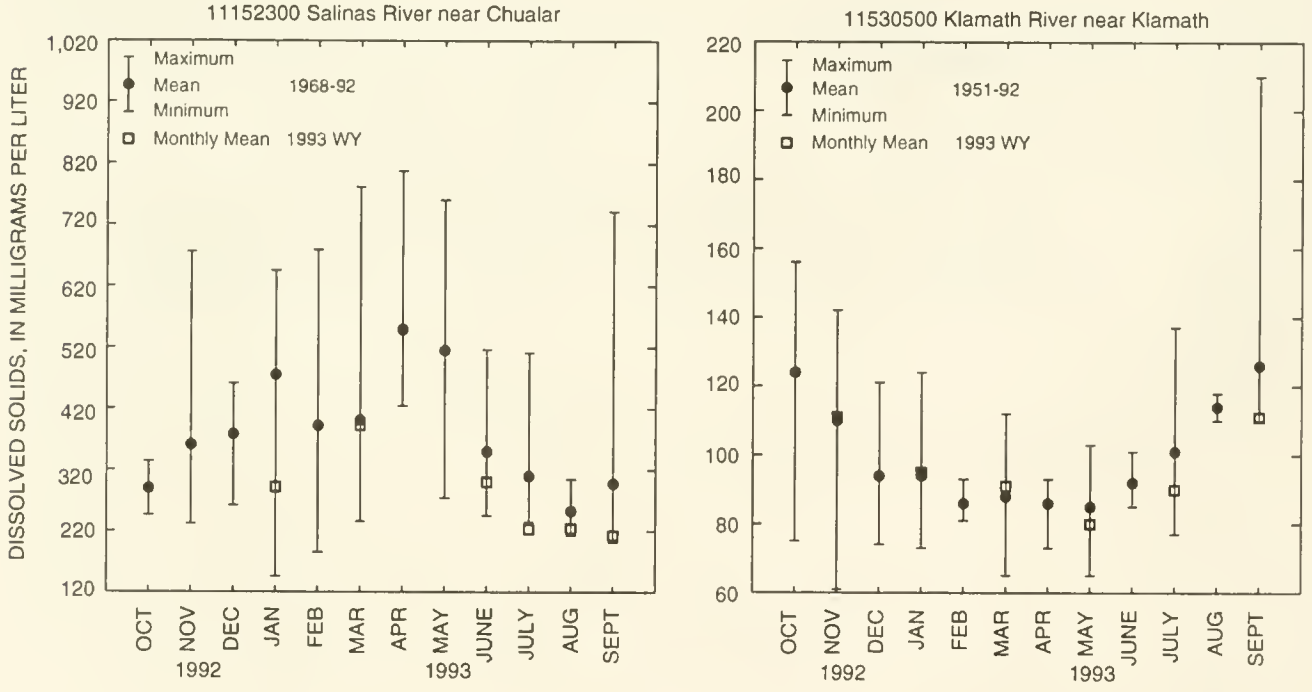

Figure 4. Comparison of monthly mean dissolved-solids concentretions during weter year 1993 with long-term dissolved-solids concentrations et two selected stations.

Sediment

Suspended-sediment discherge and concentretions were monitored daily at 4 stations and periodically at 21 stations in the area included in this volume. Monthly and annual bedload discherge were estimated for all daily stations. Sediment-monitoring stations are located as far north as Crescent City and es fer south as Bryson in San Luis Obispo County. Large variations in precipitation and drainage-basin characteristics result in significant differences in sediment-discharge rates.

Sediment discharges varied widely from long-term averages during the 1993 water year for all the daily sediment stations included in this volume. Annual sediment discharge was 128 percent of long-term average (1979-92) for Cull Creek above Cull Creek Reservoir, near Castro Valley (station 11180960), and 6 percent of the long-term average (1976-92) for Grass Valley Creek at at Fawn Lodge, near Lewiston (station 11525600).

During the 1993 water year, suspended-sediment discharge for the four daily stations ranged from 1,890 tons per year for Grass Valley Creek at Fawn Lodge, near Lewiston (stetion 11525600) to 53,000 tons per year for San Lorenzo Creek at San Lorenzo (station 11181040). Annual sediment yield ranged from a minimum of 61 tons per squsre mile for Grass Valley Creek at Fawn Lodge, near Lewiston (drainage area, 30.8 aquare miles) to a maximum of 5,270 tons per square mile for Cull Creek above Cull Reservoir, near Castro Valley (drainage area, 5.79 square miles).

HYDRODYNAMIC DATA FOR SAN FRANCISCO BAY

The U.S. Geological Survey has collected and continues to collect hydrodynamic data for San Franciaco Bay. The data include 15-minute interval time-series of salinity, specific conductance, temperature, velocity, and surfsce water, in addition to time-series of wind velocity, air temperature, and atmospheric pressure.

The data are stored in a data base that wes designed specifically for the storage and retrieval of hydrodynamics data for San Francisco Bay. The data base contains time-series data collected by the U.S. Geological Survey, as well as those collected by other agencies. Only the data collected by the U.S. Geological Survey will be described here.

The data base resides on a workstation in the U.S. Geological Survey office in Sacramento, California. Data requests for U.S. Geological Survey collected data can be obtained by contacting the California District Public Information Officer.

Station No.	Station name	Period of record
	Surface-water data	
11181360	San Pablo Strait at Point San Pablo	June 1986 to current year
11182130	Carquinez Strait at Selby	October 1986 to current year
11182450	Carquinez Strait at Martinez	June 1986 to September 1988
11185185	Suisun Bay at Mallard Island	September 1986 to September 1987
11455470	Threemile Slough at Sacramento River	March 1979 to May 1985
	Specific conductance, salinity, temperature	
11182130	Carquinez Strait at Selby (two depths)	October 1986 to current year
	Meteorological data	
SUBAY1	Suisun Bay at channel marker #13	August 1988 to Aprll 1990
SUBAY2	Suisun Bay at channel marker #27	July 1992 to current year
SPBAY	San Pablo Bay at channel marker #11	August 1988 to current year
	Velocity data	

The U.S. Geological Survey has collected velocity data at numerous locations throughout the bay using *in situ* current meters and acoustic Doppler current profilers. Most of these data have been published by the U.S. Geological Survey using report series other than the annual water resources data report series.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped drainage basins nationwide. The data provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 408 sites in NASQAN are located generally at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis and reporting that the data may be used for, (2) to describe the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) to detect changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) to provide a nationally consistent data base useful for water-quality assessment and hydrologic research.

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 1993 water year that began October 1, 1992, and ended September 30, 1993. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and contents data for lakes and reservoirs, and water-quality data for surface water. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station-Identification Numbers

Each streamsite data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream-order" system is used for regular surface-water stations and the "latitude-longitude" system is used for surface-water stations in California where only miscellaneous measurements are made.

Downstream-Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports has been in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station such as 11465350, which appears just to the left of the station name, includes the two-digit part number "11" plus the six-digit downstream-order number "465350." The part number designates the major river basin; for example, part "11" is the Pacific Slope Basins in California.

Latitude-Longitude System

The identification numbers for miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the other sites within a 1-second grid (fig. 5). This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description.

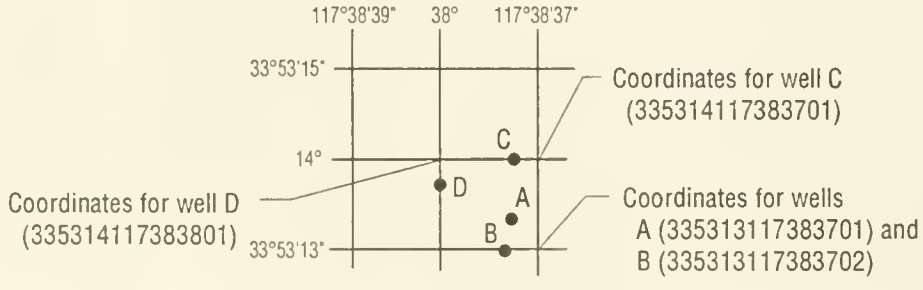

Figure 5. System for numbering miscellaneous sites (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake and reservoir contents, similarly, are those for which stage or contents may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record and partial-record stations for which data are given in this report are shown, by county, in figures 6 through 22.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake contents. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the U.S. Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in U.S. Geological Survey Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations (TWRI), Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge are prepared for any stage within the range of the measurements. If it is necessary to define extremes of discharge outside the range of current-meter measurements, the curves are extended using (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dam or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes or observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations, the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available surveys, curves, or tables defining the relation of stage and contents. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relation changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relation. When this is done, the contents computed may become increasingly in error as time increases since the last survey. Discharges over lake or reservoir spillways are computed from stage-discharge relations in the same manner as other stream discharges are computed.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following records, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1993 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gaging station is given with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time when the present station was not, and whose location was such that records from it reasonably can be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report is given in which the most recently revised figure was published.

GAGE.--The type of gage in current use, the datum of the current gage referred to sea level (see Definition of Terms), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a REMARKS paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph also is used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station, and possibly to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year that are greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error is discovered in published records, a revision is included in the first report published following discovery of the error.

Occasionally the records of a discontinued gaging station may need revision. Because for these stations there would be no current or, possible, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District Office to determine if the published records were revised after the station was discontinued. If the data were obtained by computer retrievel, the data would be current and there would be no need to check because any published revision of data is alweys accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stetions in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Date table of daily mean values

The daily table of discharge records for stream-geging stetions gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively, for each month. Discherge for the month also usuelly is expressed in cubic feet per second per squere mile (line headed "CFSM"); or in inches (line headed "IN."); or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing srees. At some stations monthly and (or) yearly observed diacharges are adjusted for reservoir storege or diversion, or diversion dete or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Stetistics of monthly meen dete

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water yeers of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEARS _____-_____,BY WATER YEAR (WY)," and will list the first and last water yeers of the range of yeers selected from the PERIOD OF RECORD paragraph in the station menuscript. It will consist of all of the stetion record within the specified water years, inclusive, including complete months of record for partial water yeers, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indiceted in the manuscript.

Summery statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean deta tabulation. This table consists of four columns, with the first column containing the line heedings of the statistica being reported. The table provides a statisticel summery of yearly, daily, and instanteneous flows, not only for the current water year but also for the previous calendar yeer and for a designated period, as appropriete. The designated period selected, "WATER YEARS _____-_____," will consist of all of the station record within the specified weter yeers, inclusive, including complete months of record for partiel water years, if any, and may coincide with the period of record for the station. The water yeers for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line heedings below), except for the "ANNUAL 7-DAY MINIMUM" stetistic, are calculeted for the designated period using complete water yeers. The other stetistical characteristics may be calculated using partial weter years.

The date or water yeer, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences mey be noted in the REMARKS paregraph of the manuscript or in footnotes. Because the designated period may not be the same as the stetion period of record published in the manuscript, occasionelly the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heeding. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statiatics and runoff data also are given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriete, are provided with each continuous record of discharge. Comments to follow clarify information presented under the verious line headinga of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storege or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily meen discharges for the year noted or for the designated period. At some stations the yeerly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes. At least 5 complete years of record must be availeble before this stetistic is published for the designated period.

HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designeted period.

HIGHEST DAILY MEAN.--The maximum daily mean diecherge for the yeer or for the desiignated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the desiignated period.

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in District computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.--The minimum instantaneous diacharge occurring for the water year or for the designatad period.

ANNUAL RUNOFF.--Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Inches (INCHES) indicates the depth to which the drainage area would be covered if all the runoff for a given period were distributed on it uniformly.

10 PERCENT EXCEEDS.--The discharge that is exceeded by 10 percent of the flow for the designated period.

50 PERCENT EXCEEDS.--The discharge that is exceeded by 50 percent of the flow for the designated period.

90 PERCENT EXCEEDS.--The discharge that is exceeded by 90 percent of the flow for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements generally are made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing the table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage and discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second (ft^3/s) for values less than 1 ft^3/s, to the nearest tenth between 1.0 and 10 ft^3/s, to whole numbers between 10 and 1,000 ft^3/s, and to three significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stetions, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the measured discharge.

Other Records Available

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of sites as well as an index of records of discharge collected by other agencies but not published by the U.S. Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge measurement notes, gage-height records, temperature measurements, and rating tables are on file in the District Office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District Office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve various types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figures 6 through 22.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern is the assurance that the data obtained represent the in-situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, are made onsite when samples are taken. To assure that measurements made in the laboratory also represent the in-situ water, carefully prescribed procedures are followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in "Techniques of Water-Resources Investigations," Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. All these references are listed in the section "Publications on Techniques of Water-Resources Investigations". Also, detailed information on collecting, treating, and shipping samples may be obtained from the District Office.

One sample can adequately define the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative value available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values for each constituent measured and are based on hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the District Office.

Historical and current (1992) dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter (ng/L). If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter (µg/L) and could reflect contamination introduced during some phase of the procedure.

Water Temperature

Water temperatures are measured at the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District Office.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations measured immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Estimates of bedload and total-sediment discharge are included for some stations. Computations of monthly bedload discharges are based on the relation between instantaneous water discharge and corresponding bedload discharge for the station. Values of bedload discharge used in defining this relation are based on samples obtained by use of the Helley-Smith bedload sampler or by modified-Einstein or Meyer-Peter Muller computation procedures. Application of the bedload-transport relation at a station was made on a daily basis or subdivided-day basis. The Helley-Smith sampler is designed to collect a time-weighted sample for the sediment moving within 0.25 ft of the streambed. Sediment moving in this portion of the flow cannot be sampled with standard suspended-sediment samplers. Calibration of the Helley-Smith sampler has not been completed, and a trap efficiency of 1.0 has been assumed applicable to this device. Error sources in the theoretical methods, based on analysis of bed-material characteristics, channel geometry, and associated hydraulic factors, are also undefined. In consequence, figures of bedload discharge must be used with caution. They are estimates, at best, and are subject to revision.

Cross-Sectional Data

Cross-sectional surveys of water temperature, pH, specific conductance, dissolved oxygen, and suspended sediment are done at all NASQAN and Hydrologic Benchmark stations during various seasons and surface-water discharges. Documentation of cross-section variation of water quality is essential in order to determine how many samples in a cross section are necessary to ensure a representative composite sample.

Laborstory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the U.S Geological Survey's National Water-Quality Laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in Techniques of Water-Resources Investigations, Book 5, Chapter C1; methods used by the laboratories are given in Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and other data obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the individual parameters.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor, temperature recorder, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products ranging from data tables to complex statistical analyses, such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

* Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.

* Daily Values File - Contains more than 220 million daily values of streamflows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.

* Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.

* Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.

* Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, VA 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5 1/4-inch floppy disk and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports also will be available on Compact Disc--Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for purchase from U.S. Geological Survey, Earth Science Information Center, Open-File Reports Section, Box 25286, MS 517, Denver Federal Center, Denver, CO 80225.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report are defined below. See the table for converting inch-pound units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by a well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease; others perform an essential role in nature in the recycling of materials, for example, decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. For the membrane filter method, these bacteria are defined as the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 0.5°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milligrams per liter of sample.

Fecal-coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. For the membrane filter method, they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milligrams per liter of sample.

Fecal-streptococcal bacteria are bacteria found in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. For the membrane filter method they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 0.5°C on KF streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milligrams per liter of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Benthic organisms (invertebrates) are the group of animals living in or on the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3) and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cell volume determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell numbers of algae are frequently used in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements on cell dimensions (that is, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (that is, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere} \quad 4/3\ \pi r^3 \qquad \text{cone} \quad 1/3\ \pi r^3 h \qquad \text{cylinder} \quad \pi r^3 h.$$

From cell volume, total algal biomass expressed as biovolume ($\pi m^3/mL$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes over all species.

Cells per volume (cells/volume) refers to the number of cells of any organism that are counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually in milliliters (mL) or liters (L).

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll *a* and *b* are the two most common pigments in plants.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic foot per second-day (cfs.d) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons or 2,445 cubic meters.

Discharge is the volume of water (or more broadly, total fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Annual 7-day minumum is the lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

Dissolved refers to that material in a representative water sample which passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate. It is recognized that certain kinds of samples cannot be filtered; to provide for this, procedures that are considered equivalent to filtering through a 0.45-micrometer membrane filter will be identified and announced at a later date.

Dissolved-solids concentration of water is determined either analytically or by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = \sum_{i=1}^{a} \frac{n_i}{n} \log 2 \frac{n_i}{n},$$

where n_i is the number of individuals per taxon, n is the totel number of individuals, and a is the total number of taxa in the sample of the community. Diversity index velues range from zero, when all the orgenisms in the samples are the same; to some positive number, when some or all the organisms in the sample are different.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, encloaed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the Earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water, together with all tributary surface streams and bodies of impounded surface water.

Gage datum is the elevation of the zero point of the reference gage from which gage height is determined as compared to aea level. This elevation is established by a system of levels from known bench marks or by approximation from topographic maps.

Gage height (G.H.) is the water-surface elevation referred to some erbitrery gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reeding on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemicel characteristic that is commonly recognized by the increased quantity of soap that is required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and megnesium) and is expressed as equivelent calcium carbonate ($CaCO_3$).

Hydrologic Benchmark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and releted factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Light-attenuation coefficient, also known es the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation

$$I = I_o e^{-\lambda L},$$

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_o}.$$

Macrophytes are the mecroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that are usuelly arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This development process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-pupa-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (UG/G, µg/g) is a unit expressing the concentretion of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of materiel analyzed.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of sediment per liter of water-sediment mixture.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called Sea Level Datum of 1929 or mean sea level in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 408 sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting that the data may be used for, (2) to describe the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) to detect changes in trends with time in the pattern occurrence of water-quality characteristics, and (4) to provide a nationally consistant data base useful for water-quality assessment and hydrologic research.

Nekton are the consumers in the aquatic environment and consist of large free-swimming organisms that are capable of sustained, directed mobility.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area of the habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter code is a five-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024-0.004	Sedimentation
Silt.....	0.004-0.062	Sedimentation
Sand.....	0.062-2.0	Sedimentation or sieve
Gravel.....	2.0-64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition or percent of total is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, or volume.

Periphyton is the assemblage of micro-organisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, the periphyton also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants, respectively, are the two categories reported.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7 are termed "acidic," and solutions with a pH greater than 7 are termed "basic." Solutions with a pH of 7 are neutral. The presence and concentration of many dissolved chemical constituents found in water are, in part, influenced by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms are also influenced, in part, by the hydrogen-ion activity of water.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{12} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton are suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton compose the plant part of the plankton. They are usually microscopic, and their movement is subject to water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials into the surrounding water, the phytoplankton have a profound effect on the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae are phytoplankton organisms having a blue pigment in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms, chiefly green plants. The rate of primary production is estimated by measuring the amount of carbon assimilated by plants (carbon method) or the amount of oxygen released (oxygen method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2/time) for periphyton and macrophytes and mg C/(m^3/time) for phytoplankton] are the units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity that the oxygen light- and dark-bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O_2/(m^2/time) for periphyton and macrophytes and mg O_2/(m^3/time) for phytoplankton] are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light- and dark-bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical Program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment; thus, the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Sea level refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of occurrance of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bedload is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and vary close to it. In this report, bedload is considered to consist of particles in transit within 0.25 ft of the streambed.

Bedload discharge (tons per day) is the quantity of sediment, as measured by dry weight, that moves past a section as bedload in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour period.

Suspended-sediment discharge (tons per day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day by multiplying discharge times milligrams per liter times 0.0027.

Suspended-sediment load (tons per day) is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total-sediment discharge or total-sediment load (tons per day) is the sum of suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry mass, that passes a section in a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating dissolved-solids concentration in water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and the volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic-organism collection and plexiglass strips for periphyton collection.

Surface area of a lake is the area, in square miles or acres, outlined on the latest U.S. Geological Survey topographic map as the boundary of the lake and measured by a planimeter. In localities not covered by topographic maps, the areas are computed from the best maps available. Areas shown are for the lake stage at the time the map was made.

Surficial bed material is the part (upper 0.1 to 0.2 ft or 0.03 to 0.06 m) of the bed material that is sampled by using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment; thus, the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the presence of a thermograph or a digital mechanism that records water temperature in a digital format on punched paper tape.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total load (tons) is the total amount of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the milligrams per liter of the constituent, times the factor 0.0027, times the number of days.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment; thus, the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses, because different digestion procedures are likely to produce different analytical results.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in the dissolved and suspended phases of the sample. A knowledge of the expected form is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all the constituent in the sample.)

Turbidity of a sample is the reduction of transparency due to the presence of particulate matter. In this report it is expressed in Nephelometric turbidity units (NTU), obtained from the Nephelometric method for turbidity determination which measures the intensity of light scattered by suspended particles at 90° from the path of incident light source.

Water year in U.S. Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1993, is called the "1993 water year."

WDR is used as an abbreviation for "Water-Data Reports" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Map Distribution, Box 25286, MS 306, Denver Federal Center, Denver, CO 80225. Prepayment is required. Remittance should be sent by check or money order payable to U.S. Geological Survey, Department of the Interior. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. Water temperature--influential factors, field measurement, and data presentation, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. Guidelines for collection and field analysis of ground-water samples for selected unstable constituents, by W.W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

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3-A3. Measurement of peak discharge at culverts by indirect methods, by G.L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

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3-A17. Acouatic velocity meter systems, by Antoniua Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.

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3-B6. The principle of superposition and its application in ground-water hydraulics, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.

3-B7. Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow, by Eliezar J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 190 pages.

3-C1. Fluvial sediment concepts, by H.P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. Field methods for measurement of fluvial sediment, by H.P. Guy and V.W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

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4-A2. Frequency curves, by H.C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

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4-D1. Computation of rate and volume of stream depletion by wells, by C.T. Jankins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. Methods for determination of inorganic substances in water and fluvial sediments, edited by M.J. Fishman and L.C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.

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5-A4. Methods for collection and analysis of aquatic biological and microbiological samples, edited by L.J. Britton and P.E. Greeson: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.

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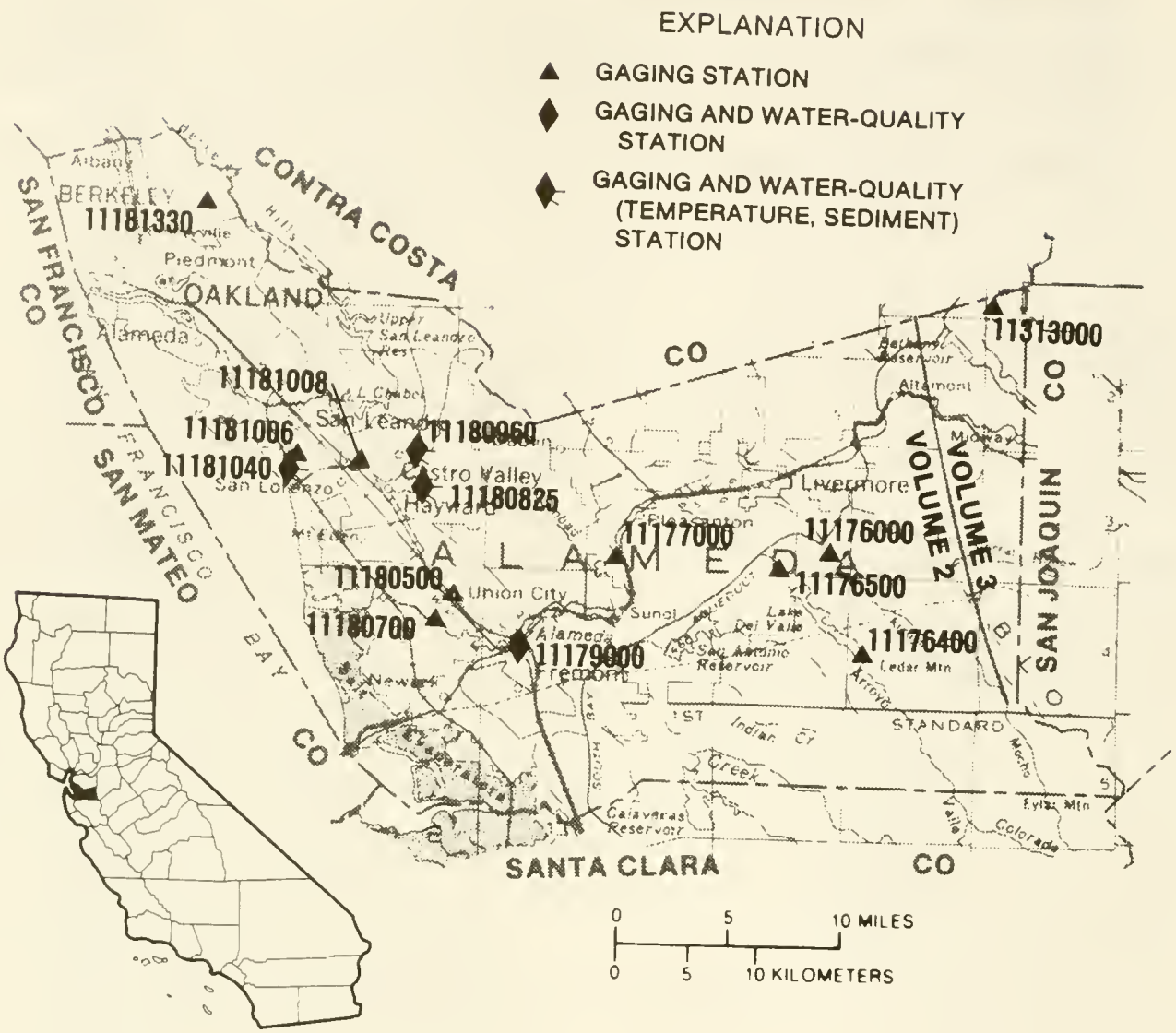

Figure 6. Location of discharge and water-quality stations in Alameda County. (NOTE: Record for station 11313000 published in volume 3.)

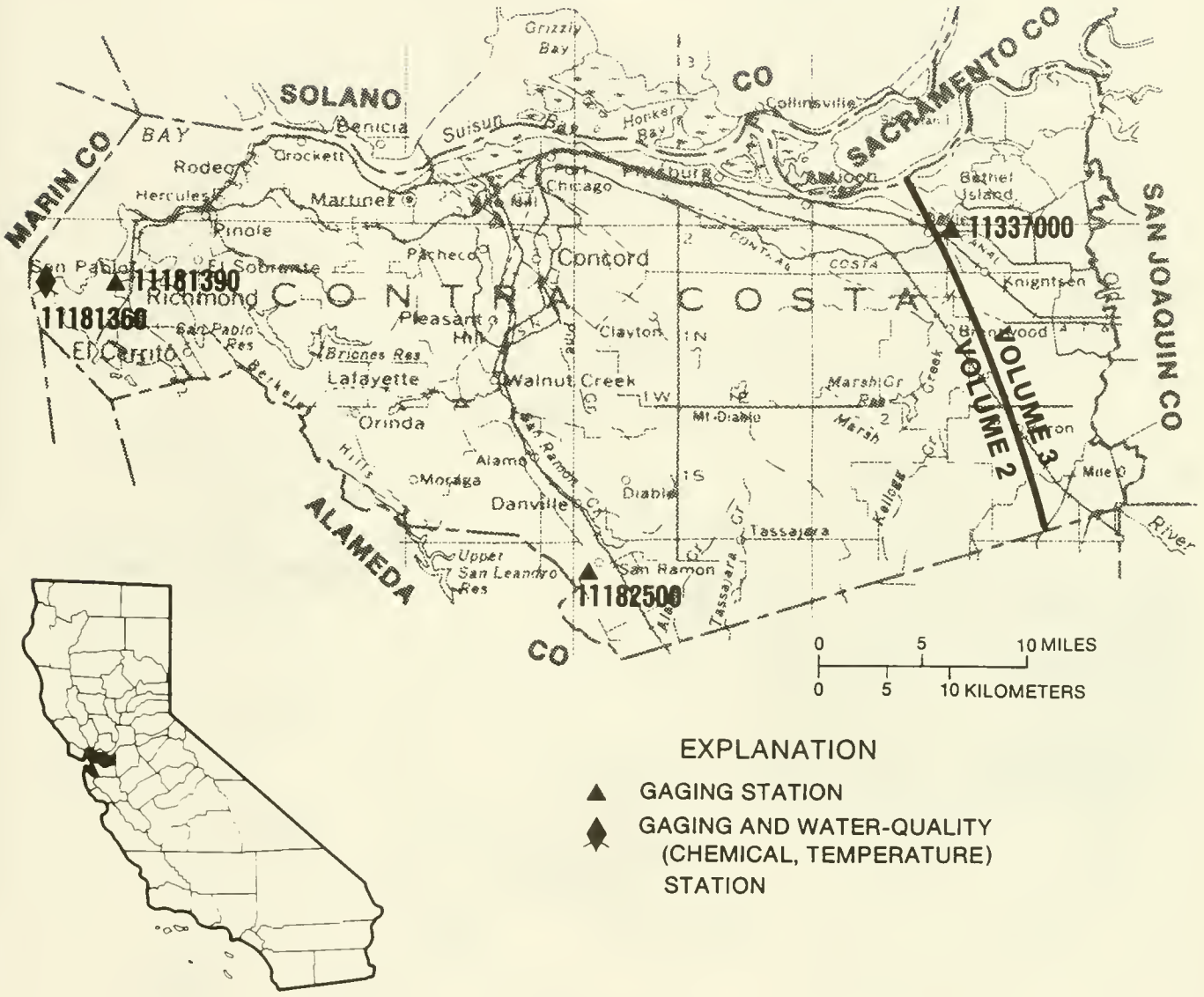

Figure 7. Location of discharge and watar-quality stations in Contra Costa County.
(NOTE: Record for station 11337000 published in volume 3.)

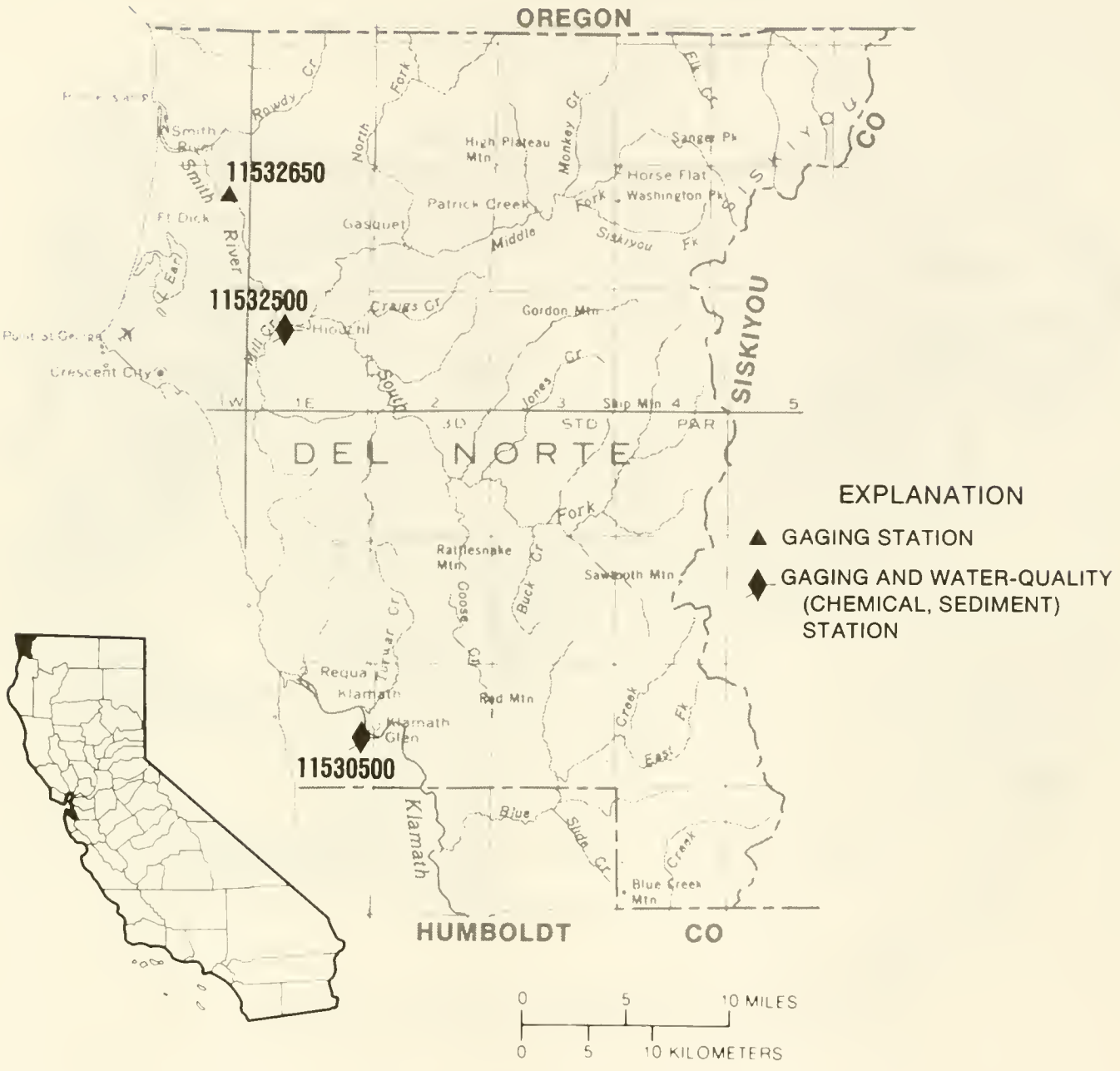

Figure 8. Location of discharge and water-quality stations in Del Norte County.

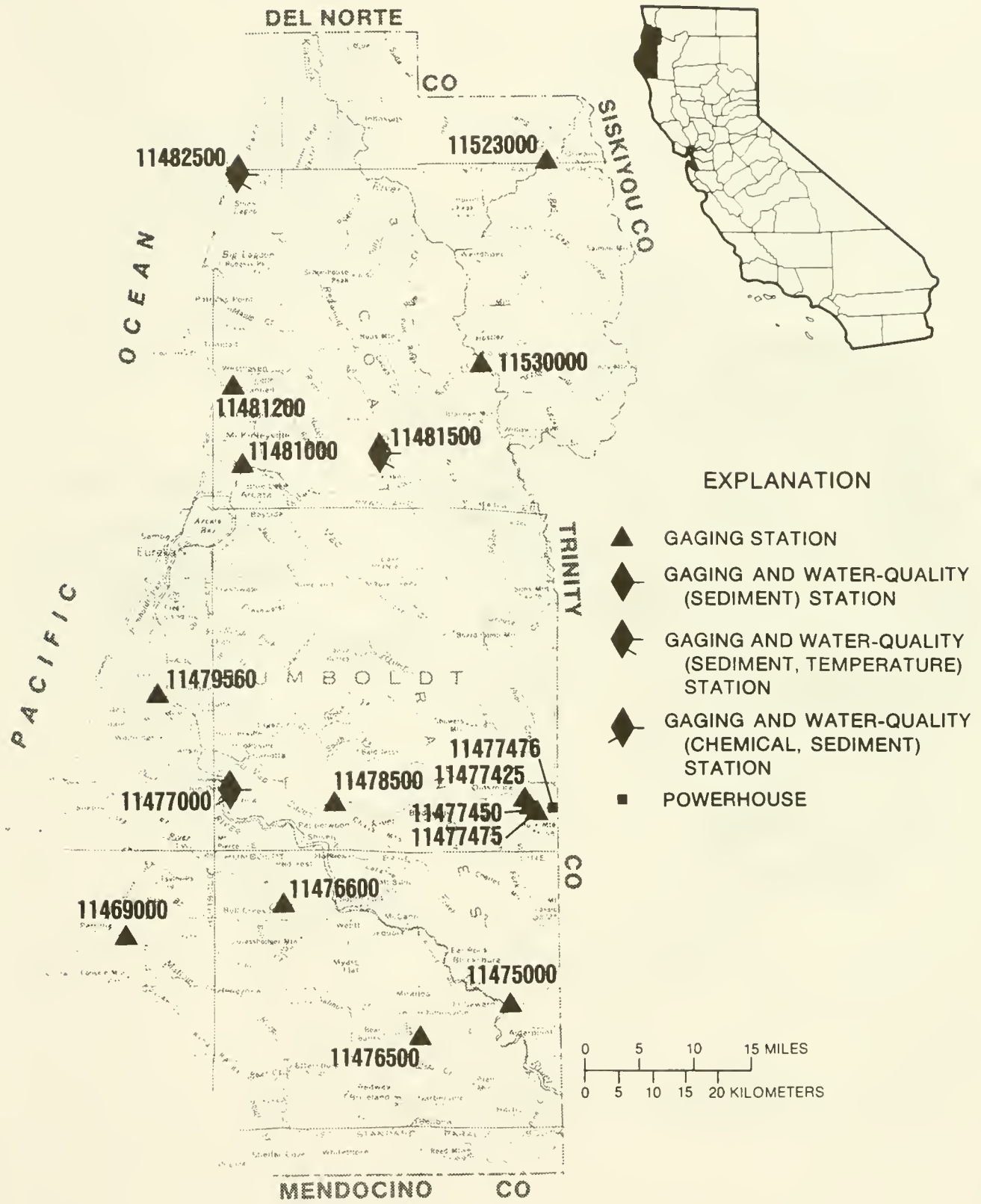

Figure 9. Location of discharge and water-quality stations in Humboldt County.

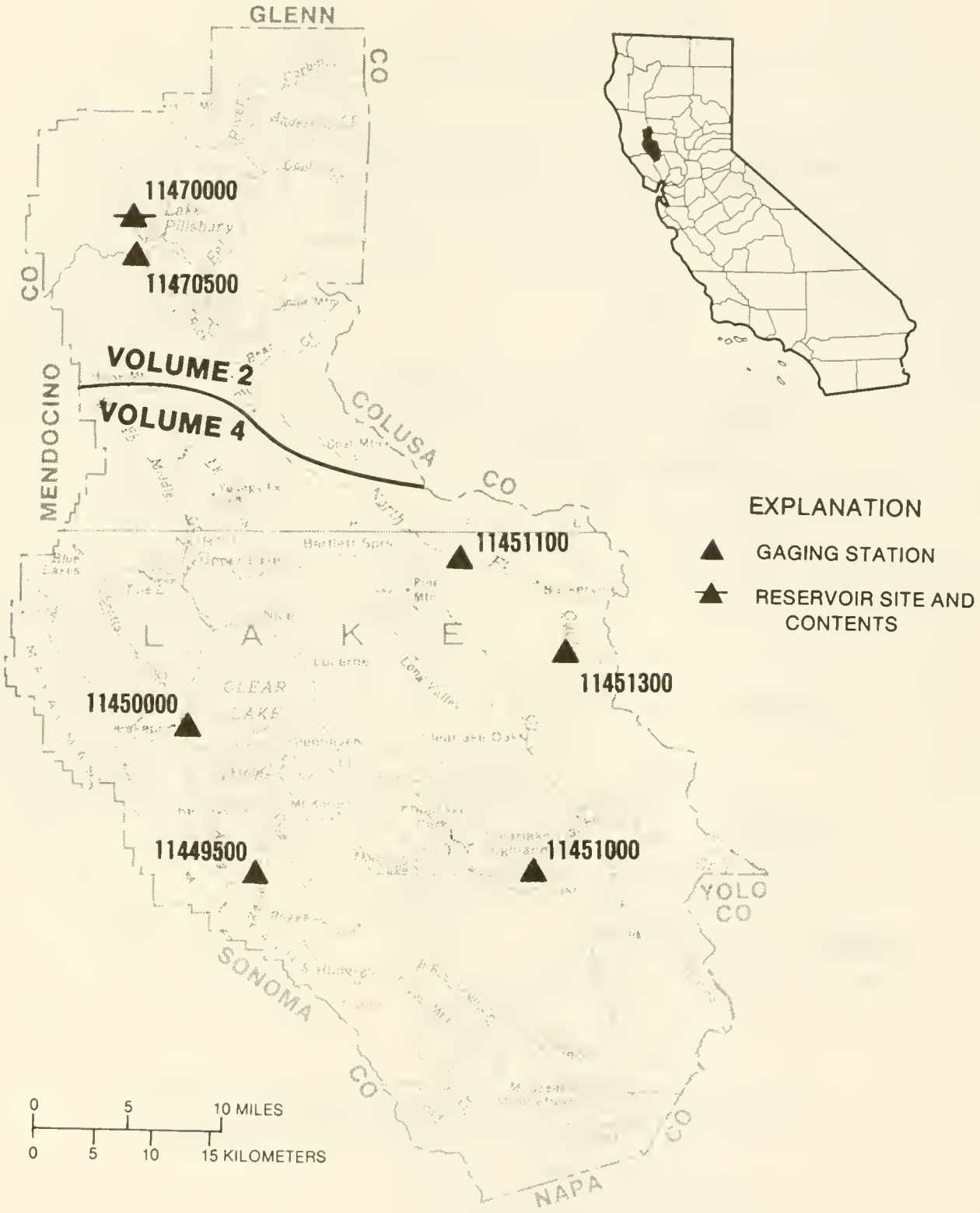

Figure 10. Location of discharge stations in Lake County. (NOTE: Records for stations 11449500 through 11451300 published in volume 4.)

Figure 11. Location of discharge stations in Marin County.

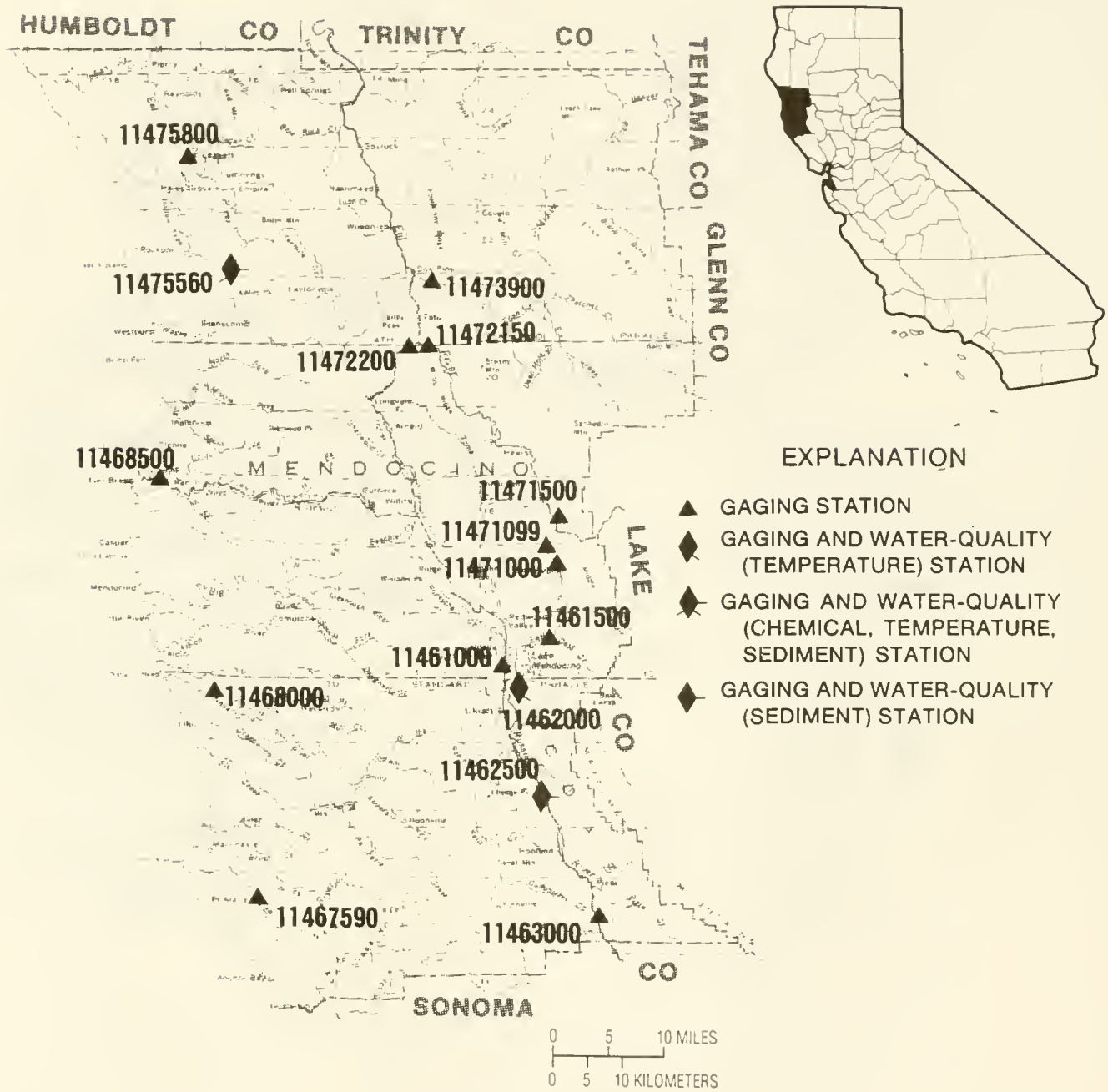

Figure 12. Location of discharge and water-quality stations in Mendocino County.

Figure 13. Location of discharge and water-quality stations in Monterey County.

Figure 14. Location of discharge and water-quality stations in Napa County.
(NOTE: Record for station 11453900 published in volume 4.)

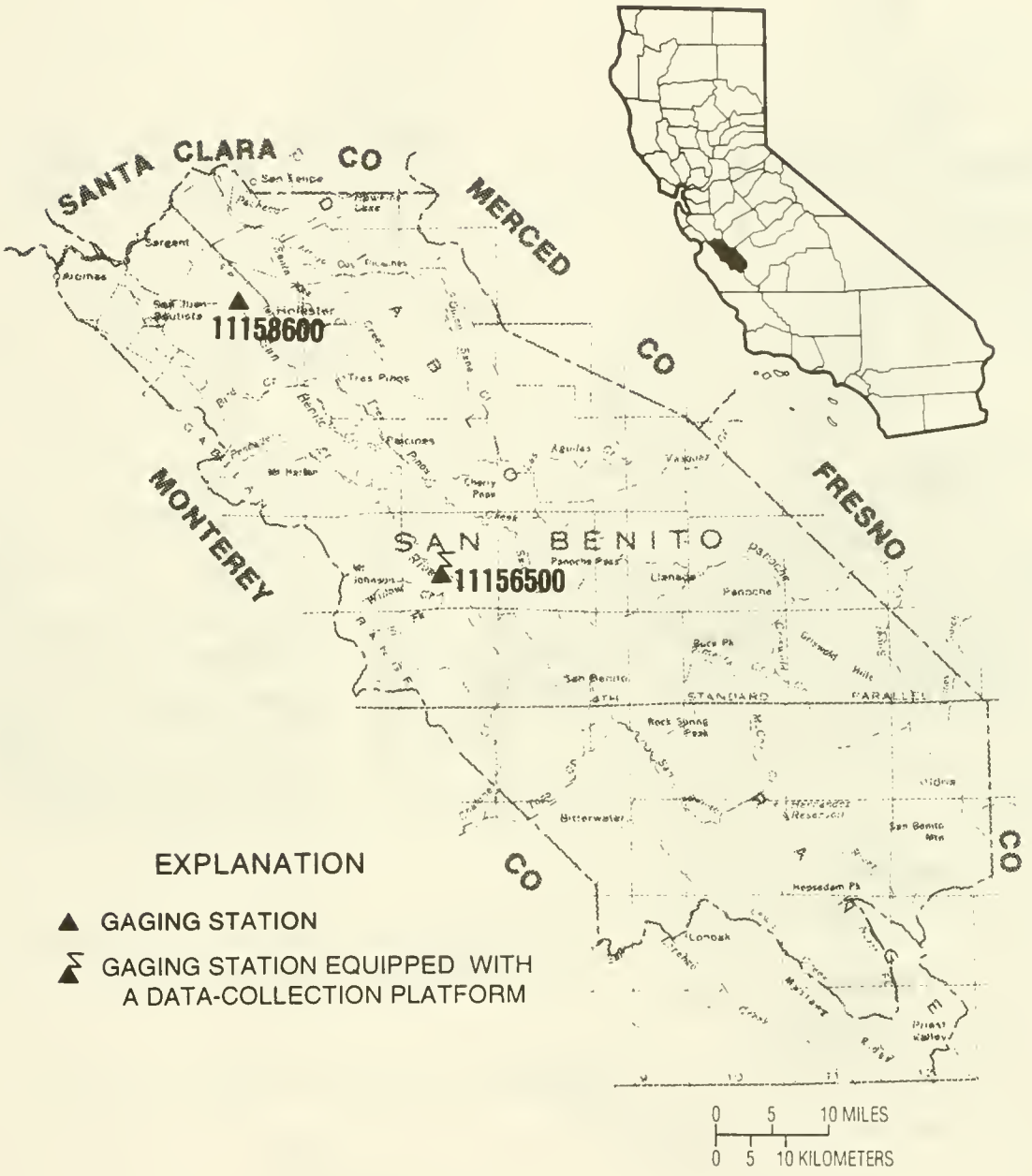

Figure 15. Location of discharge stations in San Benito County.

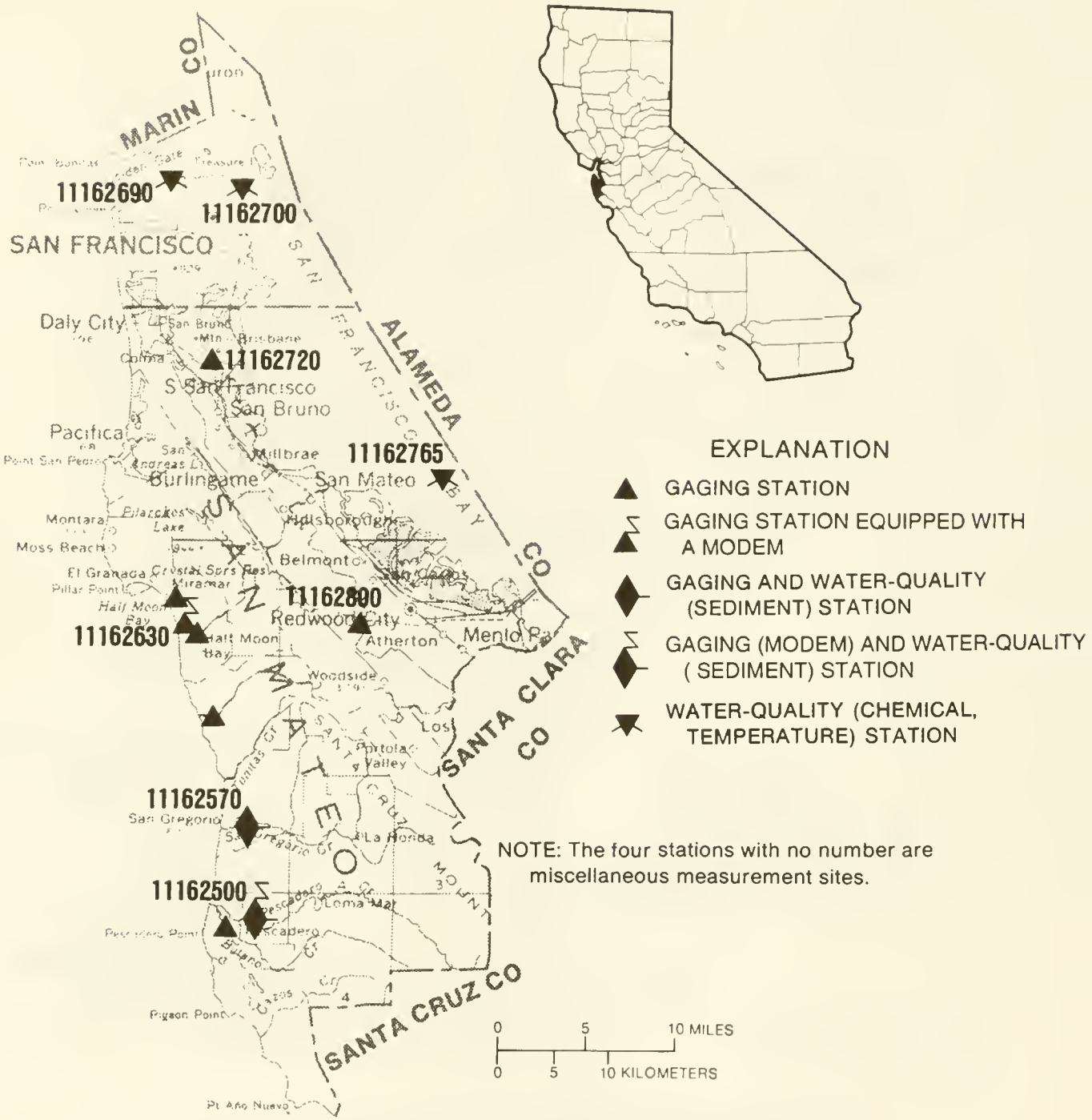

Figure 16. Location of discharge and water-quality stations in San Francisco and San Mateo Counties.

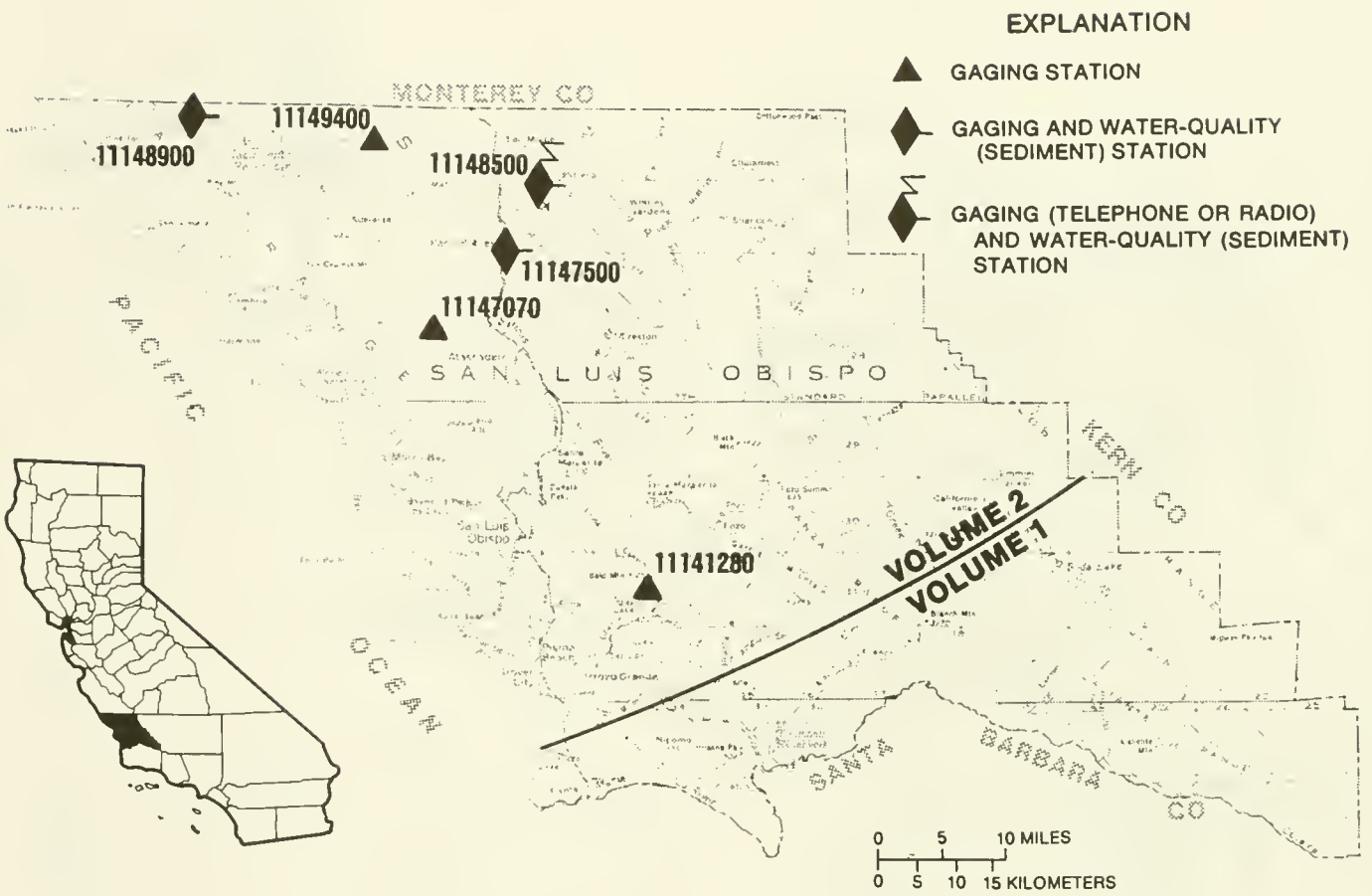

Figure 17. Location of discharge and water-quality stations in San Luis Obispo County.

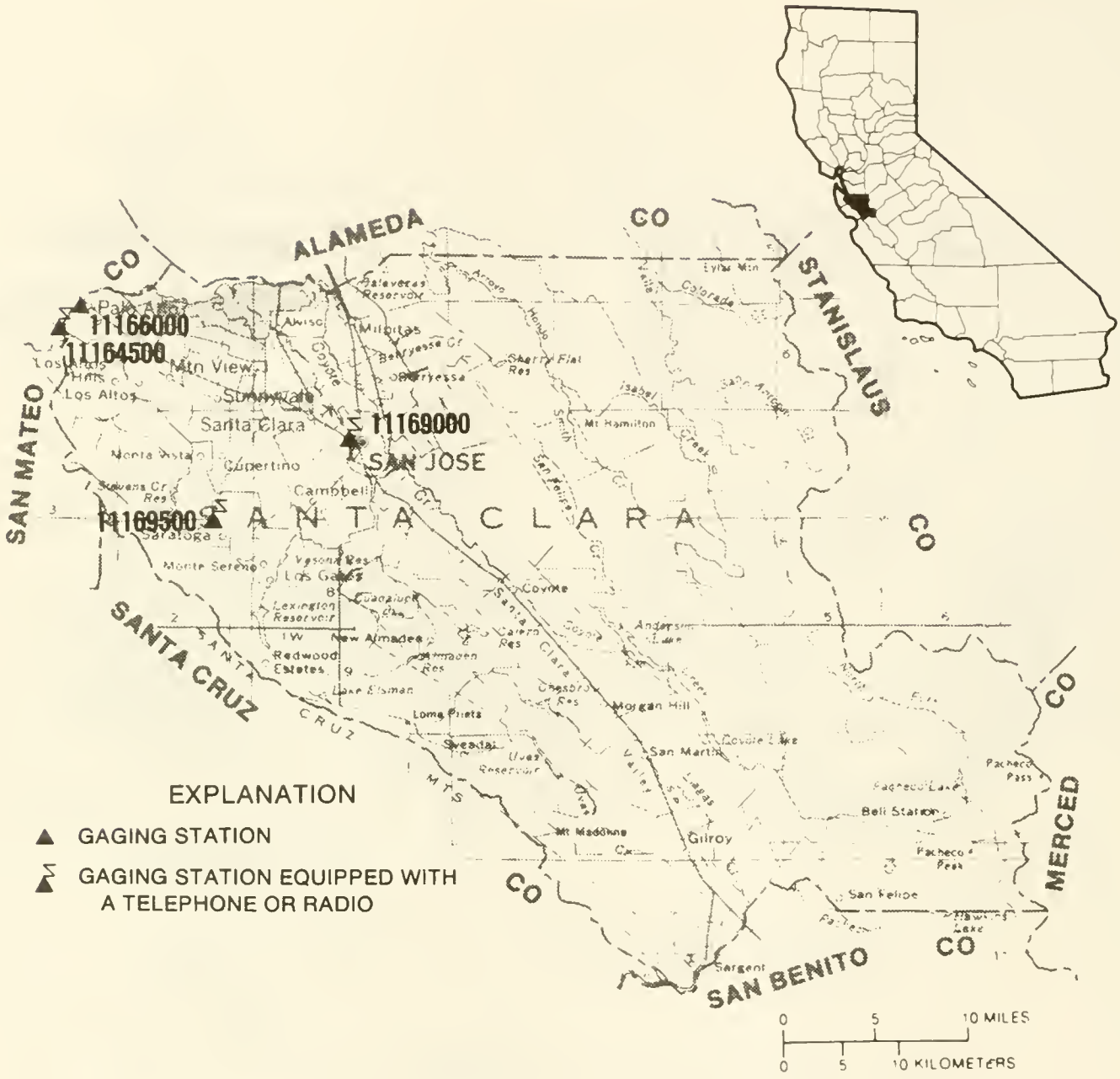

Figure 18. Location of discharge stations in Santa Clara County.

Figure 19. Location of discharge and water-quality stations in Santa Cruz County.

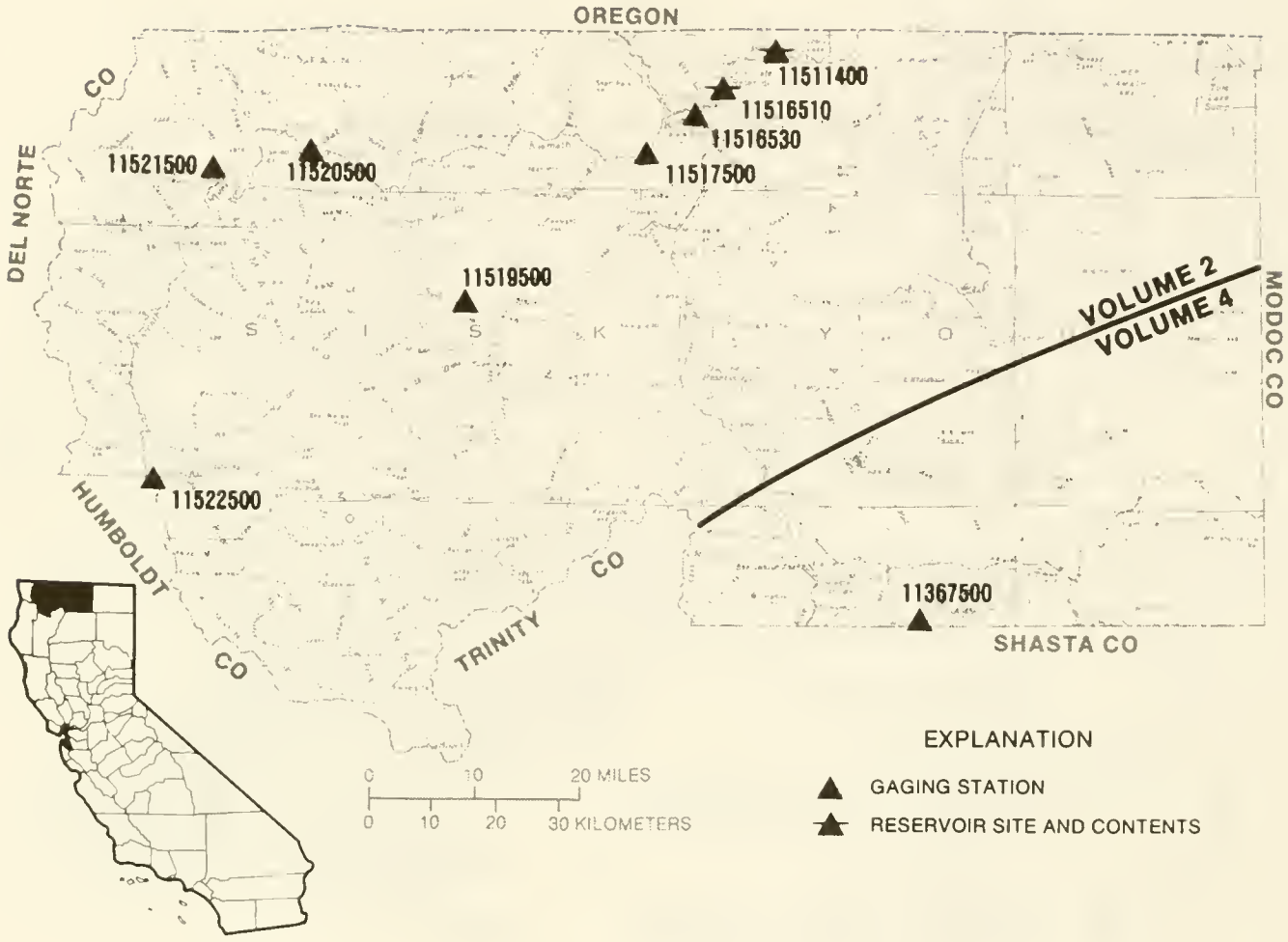

Figure 20. Location of discharge stations in Siskiyou County.
(NOTE: Records for station 11367500 published in volume 4.)

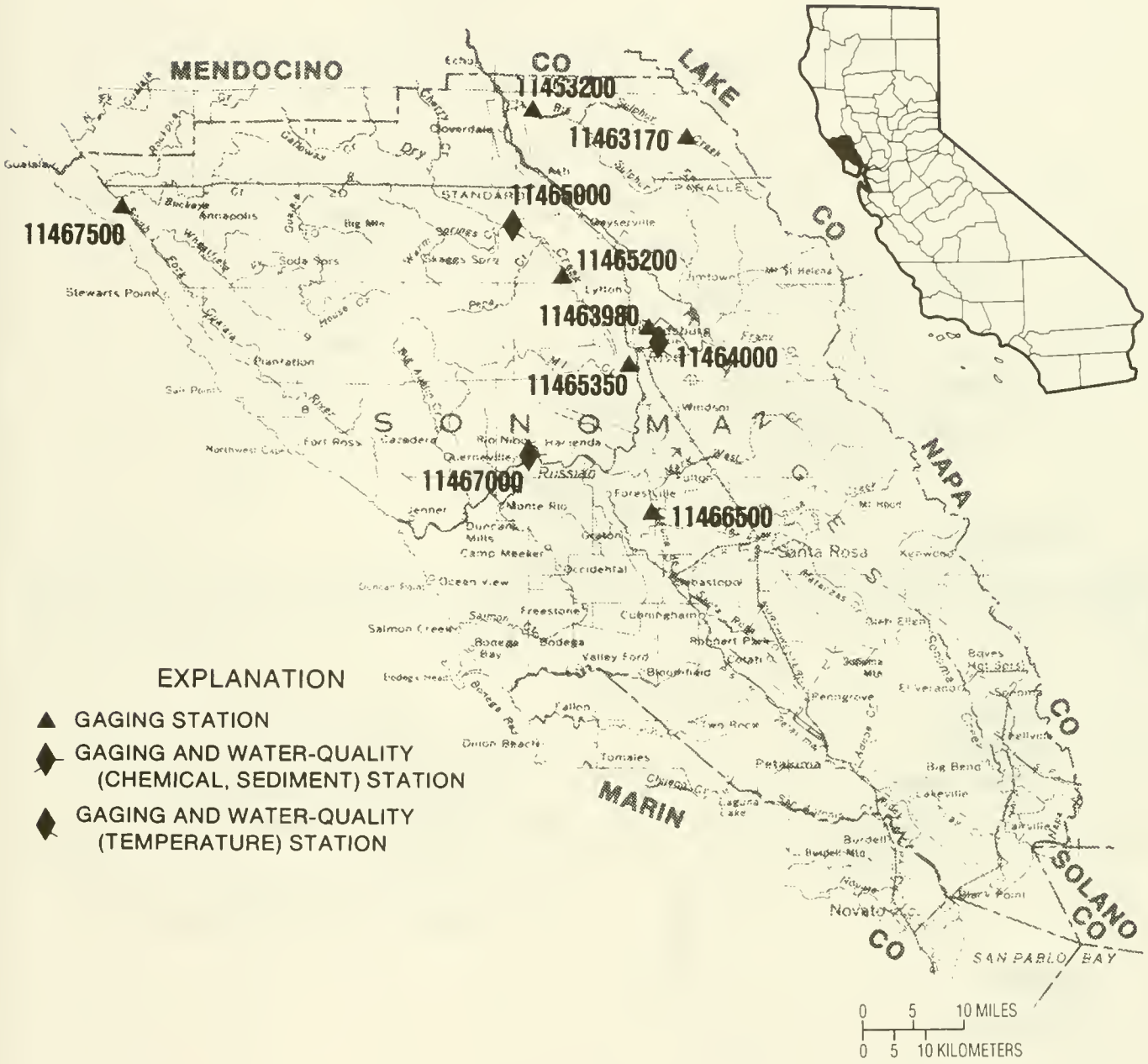

Figure 21. Location of discharge and water-quality stations in Sonoma County.

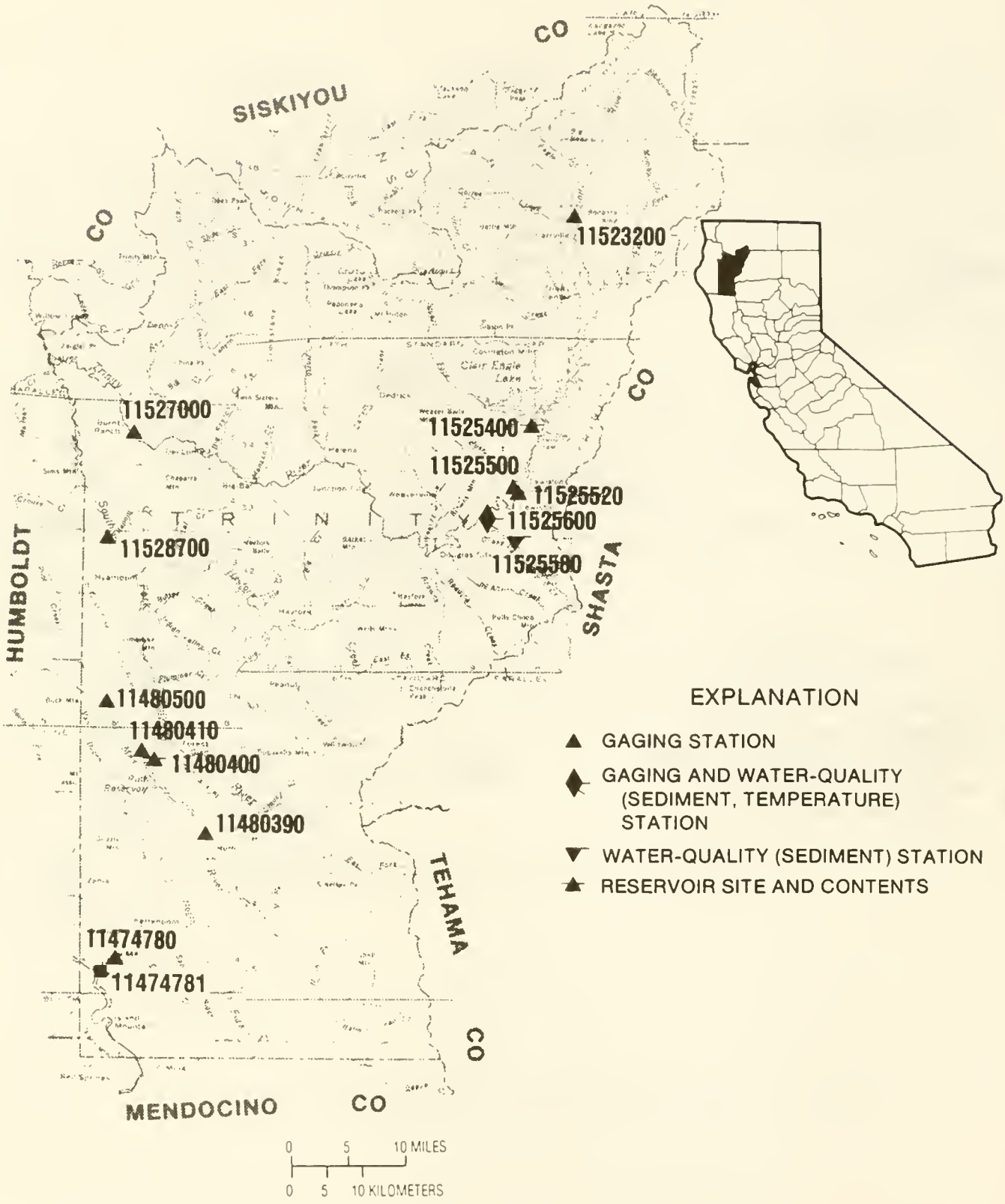

Figure 22. Location of discharge and water-quality stations in Trinity County.

GAGING STATION AND WATER-QUALITY RECORDS

Remark Codes

The following remark codes may eppear with the water-quality data in this report:

PRINTED OUTPUT	REMARK
e	Estimated value
>	Actual value is greater than value shown
<	Actual value is less than value shown
K	Results based on colony count outside the acceptable range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism astimated as dominant
*	Instantaneous streamflow at the time of cross-sectional measurements
1	Laboratory value

NOTE: MBAS determinations made from January 1, 1970, through August 29, 1993, at the Nationel Water Quality Laboratory in Denver (Analyzing Agency Code 80020) are positively biasad. These data can be corrected on the basis of the following equation, if concentrations of dissolved nitrate plus nitrite, as nitrogen, end dissolved chloride, determined concurrently with the MBAS data, are applied.

MBASCOR = M - 0.0088N - 0.00019C

where:

MBASCOR = corrected MBAS concentration, in mg/L;
M = raported MBAS concentration, in mg/L;
N = dissolved nitrate plus nitrite, as nitrogen, concentration, in mg/L; and
C = dissolved-chloride concentration, in mg/L.

The detection limit of the new method is 0.02 mg/L; whereas, the detection limit for the old method was 0.01 mg/L. A detection limit of 0.02 mg/L should be used with corrected MBAS data from January 1, 1970, through August 29, 1993.

11141280 LOPEZ CREEK NEAR ARROYO GRANDE, CA

LOCATION.--Lat 35°14'08", long 120°28'17", in SE 1/4 sec.19, T.31 S., R.14 E., San Luis Obispo County, Hydrologic Unit 18060006, on right bank 3.4 mi north of Lopez Lake Spillway and 9.2 mi northeast of Arroyo Grande.

DRAINAGE AREA.--20.9 mi^2.

PERIOD OF RECORD.--July 1967 to current year.
CHEMICAL DATA: Water yeer 1977.
WATER TEMPERATURE: Water yeers 1968-72.
SEDIMENT DATA: Water yeers 1968-72.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 580 ft above sea level, from topographic map. Prior to Oct. 31, 1984, at site 0.4 mi downstream at different datum.

REMARKS.--Records poor. Small diversions upstream from station for domestic use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,830 ft^3/s, Jan. 25, 1969, gage height, 9.26 ft in gage well, 10.8 ft from floodmerks, site and datum then in use, from rating curve extended above 300 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 9.62 ft, Mar. 1, 1983, site end datum then in use; minimum daily discharge, 0.30 ft^3/s, Aug. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 13	2200	325	6.53	Mar. 27	2215	102	5.54
Feb. 23	0230	*330	*6.59				

Minimum daily, 0.92 ft^3/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.92	2.2	1.8	8.9	13	42	20	6.9	5.9	e3.6	e3.1	2.6
2	.98	2.1	1.8	15	12	43	19	6.9	5.7	e3.6	e3.1	2.6
3	1.0	2.0	1.8	9.3	12	34	18	6.9	5.7	e3.5	e3.1	2.7
4	1.0	2.0	1.8	7.7	12	31	17	6.9	6.2	e3.5	e3.2	2.6
5	.99	2.0	1.8	6.9	11	27	16	6.9	7.1	e3.5	e3.2	2.7
6	.97	2.0	1.8	9.7	11	26	16	6.8	6.2	e3.5	e3.1	2.6
7	.95	2.0	3.3	83	11	24	17	6.7	5.9	e3.4	e3.0	2.6
8	1.0	2.1	2.7	54	39	23	14	6.7	5.7	e3.4	2.9	2.6
9	1.1	2.0	2.8	53	37	21	13	6.4	5.6	e3.4	3.1	2.5
10	1.1	1.9	2.9	67	25	20	12	6.1	5.4	e3.3	3.1	2.5
11	1.1	2.0	5.0	60	18	20	11	6.1	5.4	e3.2	3.0	2.5
12	1.2	2.0	4.6	60	15	18	11	6.1	e5.1	e3.2	3.0	2.6
13	1.3	2.0	4.2	124	13	18	11	6.2	e4.7	e3.1	3.0	2.7
14	1.4	1.9	4.1	128	11	17	11	6.0	e4.4	e3.1	3.2	2.8
15	1.4	1.9	3.9	89	10	16	10	5.8	e4.3	e3.1	3.2	2.8
16	1.4	1.9	3.8	86	10	16	9.6	5.8	e4.2	e3.0	3.1	2.8
17	1.4	1.9	3.9	105	9.2	16	9.7	6.0	e4.1	e3.0	3.6	2.8
18	1.4	1.8	3.8	93	14	15	10	6.0	e4.1	e3.0	3.3	2.8
19	1.4	1.8	3.8	64	17	13	9.4	6.0	e4.1	e3.0	2.9	2.7
20	1.4	1.8	3.7	41	20	11	8.9	5.8	e4.1	e3.0	2.8	2.7
21	1.5	1.8	3.6	31	19	11	8.7	6.8	e4.0	e3.0	2.7	2.7
22	1.6	1.8	3.5	29	19	11	8.3	6.3	e4.0	e3.1	2.7	2.6
23	1.4	1.8	3.5	24	162	11	8.3	6.3	e3.9	e3.1	2.7	2.7
24	1.4	1.8	3.4	22	96	11	8.1	6.3	e3.9	e3.2	2.7	2.6
25	1.5	1.8	3.3	20	98	36	7.7	6.7	e3.8	e3.2	2.6	2.5
26	1.5	1.8	3.3	18	104	50	7.7	6.4	e3.8	e3.1	2.6	2.5
27	1.5	1.8	3.3	17	66	42	7.6	6.3	e3.8	e3.1	2.6	2.5
28	1.5	1.8	3.5	16	51	49	7.3	6.2	e3.7	e3.2	2.5	2.5
29	2.5	1.8	17	15	---	36	6.9	6.1	e3.7	e3.2	2.5	2.4
30	4.1	1.8	25	14	---	26	6.9	6.0	e3.7	e3.2	2.5	2.4
31	2.4	---	10	14	---	23	---	6.1	---	e3.1	2.5	---
TOTAL	44.31	57.3	142.7	1384.5	935.2	757	341.1	196.5	142.2	99.9	90.6	78.6
MEAN	1.43	1.91	4.60	44.7	33.4	24.4	11.4	6.34	4.74	3.22	2.92	2.62
MAX	4.1	2.2	25	128	162	50	20	6.9	7.1	3.6	3.6	2.8
MIN	.92	1.8	1.8	6.9	9.2	11	6.9	5.8	3.7	3.0	2.5	2.4
AC-FT	88	114	283	2750	1850	1500	677	390	282	198	180	156

e Estimated.

11141280 LOPEZ CREEK NEAR ARROYO GRANDE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.86	4.23	6.79	20.4	26.9	26.2	13.0	6.77	4.43	3.20	2.75	2.56
MAX	9.12	13.6	26.4	145	133	133	65.2	46.1	20.8	13.8	9.82	8.30
(WY)	1984	1984	1984	1969	1969	1983	1983	1983	1983	1983	1983	1983
MIN	1.03	1.23	1.58	2.00	2.00	2.46	2.08	1.75	1.38	.72	.44	.82
(WY)	1978	1978	1991	1991	1991	1977	1977	1990	1972	1977	1977	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1967 - 1993	
ANNUAL TOTAL	1852.20		4269.91			
ANNUAL MEAN	5.06		11.7		9.91	
HIGHEST ANNUAL MEAN					37.3	1983
LOWEST ANNUAL MEAN					1.89	1977
HIGHEST DAILY MEAN	150	Feb 15	162	Feb 23	1360	Jan 25 1969
LOWEST DAILY MEAN	.82	Sep 27	.92	Oct 1	.30	Aug 1 1977
ANNUAL SEVEN-DAY MINIMUM	.86	Sep 24	.97	Oct 1	.34	Jul 28 1977
INSTANTANEOUS PEAK FLOW			330	Feb 23	2830	Jan 25 1969
INSTANTANEOUS PEAK STAGE			6.59	Feb 23	9.62	Mar 1 1983
ANNUAL RUNOFF (AC-FT)	3670		8470		7180	
10 PERCENT EXCEEDS	6.4		25		15	
50 PERCENT EXCEEDS	2.2		3.9		3.8	
90 PERCENT EXCEEDS	.98		1.8		1.5	

11143000 BIG SUR RIVER NEAR BIG SUR, CA

LOCATION.--Lat 36°14'45", long 121°46'20", in SW 1/4 SW 1/4 sec.29, T.19 S., R.2 E., Monterey County, Hydrologic Unit 18060006, on right bank at downstream side of bridge, 0.4 mi upstream from Post Creek, and 2.6 mi southeast of town of Big Sur.

DRAINAGE AREA.--46.5 mi^2.

PERIOD OF RECORD.--March 1950 to current year. Prior to October 1959, published as Sur River at Big Sur.
CHEMICAL DATA: Water year 1977.
WATER TEMPERATURE: Water years 1966-79.

REVISED RECORDS.--WSP 1445: 1952(P), 1953(M). WSP 1715: 1951, drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 240 ft above sea level, from topographic map. Prior to Oct. 1, 1951, nonrecording gage at site 0.9 mi downstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft^3/s, Jan. 5, 1978, gage height, 14.30 ft, from rating curve extended above 6,800 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 2.6 ft^3/s, Aug. 23, 1977, Sept. 9, Oct. 29, Nov. 5, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	0245	1,650	7.50	Jan. 14	0300	*3,400	*9.25

Minimum daily, 5.8 ft^3/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	14	17	283	259	548	141	74	57	e39	e26	21
2	6.0	12	23	281	240	496	133	73	56	e38	e26	20
3	6.3	11	46	194	222	454	128	73	56	e38	e25	20
4	6.5	11	29	151	208	415	124	72	60	e38	e25	20
5	6.3	11	27	127	215	381	120	70	65	e37	e25	19
6	6.4	10	98	313	194	352	118	69	61	e37	e25	19
7	7.1	11	132	1120	197	327	115	68	60	e36	e24	19
8	7.4	10	58	744	325	305	111	67	57	e36	e24	18
9	7.6	10	187	494	366	286	109	65	55	e35	e24	18
10	8.1	11	172	450	339	269	106	63	53	e34	e23	19
11	7.9	11	301	352	309	253	104	65	51	e33	e23	18
12	7.9	11	146	359	277	240	101	65	50	e32	e23	17
13	7.8	11	103	964	257	228	99	64	48	e32	e23	18
14	8.4	11	82	2070	241	221	98	62	47	e31	e23	18
15	9.0	11	71	1250	228	208	96	61	46	e30	e22	20
16	9.2	11	63	1110	221	199	94	60	45	29	e22	20
17	8.6	12	63	1390	268	202	122	59	46	29	e21	20
18	8.2	11	60	1250	442	187	115	59	48	27	e21	22
19	8.2	11	54	908	852	179	100	58	47	26	e21	20
20	8.4	12	52	964	943	171	95	58	46	26	e20	20
21	10	11	49	1220	774	165	92	57	47	27	e20	20
22	9.7	17	47	1220	665	159	90	56	48	27	e20	20
23	9.0	14	46	936	788	156	88	56	48	27	e20	18
24	8.8	13	44	738	710	166	87	60	47	27	e19	18
25	9.3	13	43	606	657	167	84	72	46	29	e19	18
26	10	13	42	513	776	171	82	69	45	30	e19	19
27	10	14	41	448	689	172	81	67	43	29	e19	19
28	11	14	131	392	613	171	79	60	42	27	e19	18
29	46	15	267	344	---	156	77	57	e41	e27	e19	18
30	56	16	198	309	---	148	75	56	e40	e27	e19	18
31	20	---	151	285	---	142	---	59	---	e27	20	---
TOTAL	350.9	363	2843	21785	12275	7694	3064	1974	1501	967	679	572
MEAN	11.3	12.1	91.7	703	438	248	102	63.7	50.0	31.2	21.9	19.1
MAX	56	17	301	2070	943	548	141	74	65	39	26	22
MIN	5.8	10	17	127	194	142	75	56	40	26	19	17
AC-FT	696	720	5640	43210	24350	15260	6080	3920	2980	1920	1350	1130

e Estimated.

11143000 BIG SUR RIVER NEAR BIG SUR, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.5	47.0	103	224	262	218	146	65.2	35.3	22.6	16.7	15.0
MAX	86.8	302	449	986	940	964	843	333	90.8	53.5	40.4	39.4
(WY)	1963	1951	1956	1952	1983	1983	1958	1983	1983	1983	1983	1983
MIN	5.08	4.97	7.52	8.27	11.3	16.8	9.15	8.70	6.17	4.94	3.80	4.52
(WY)	1991	1991	1991	1991	1977	1977	1977	1977	1977	1977	1977	1961

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1950 - 1993	
ANNUAL TOTAL	23048.2		54067.9			
ANNUAL MEAN	63.0		148		97.2	
HIGHEST ANNUAL MEAN					319	1983
LOWEST ANNUAL MEAN					10.0	1977
HIGHEST DAILY MEAN	1280	Feb 15	2070	Jan 14	4120	Dec 23 1955
LOWEST DAILY MEAN	5.8	Oct 1	5.8	Oct 1	2.6	Aug 23 1977
ANNUAL SEVEN-DAY MINIMUM	6.2	Sep 30	6.3	Oct 1	2.9	Nov 4 1990
INSTANTANEOUS PEAK FLOW			3400	Jan 14	10700	Jan 5 1978
INSTANTANEOUS PEAK STAGE			9.25	Jan 14	14.30	Jan 5 1978
ANNUAL RUNOFF (AC-FT)	45720		107200		70410	
10 PERCENT EXCEEDS	158		372		216	
50 PERCENT EXCEEDS	20		50		28	
90 PERCENT EXCEEDS	8.2		11		9.3	

11143200 CARMEL RIVER AT ROBLES DEL RIO, CA

LOCATION.--Lat 36°28'28", long 121°43'40", in Los Laureles Grant, Monterey County, Hydrologic Unit 18060012, on right bank 10 ft downstream from county road bridge at Robles del Rio, 0.2 mi downstream from Hitchcock Canyon, and 11 mi southeast of town of Carmel.

DRAINAGE AREA.--193 mi^2.

PERIOD OF RECORD.--August 1957 to current year.

REVISED RECORDS.--WSP 1715: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 270 ft above sea level, from topographic map. Prior to June 1981, at site 150 ft upstream at same datum.

REMARKS.--Records fair. Low flow regulated by Los Padres Reservoir 11 mi upstream, usable capacity, 2,180 acre-ft, and San Clemente Reservoir 4 mi upstream, usable capacity, 796 acre-ft. Diversion from San Clemente Reservoir for municipal supply amounted to 4,320 acre-ft for the current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,380 ft^3/s, Feb. 28, 1983, gage height, 11.49 ft, from rating curve extended above 2,800 ft^3/s on basis of slope-area measurement at gage height 9.97 ft; no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 11.7 ft from floodmarks, discharge, 6,930 ft^3/s, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	0700	1,510	8.51	Feb. 19	0945	2,800	9.74
Jan. 14	0615	*5,100	*11.17				

Minimum daily, 2.5 ft^3/s, Nov. 4, 8-11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.9	2.8	174	228	677	180	67	48	e19	5.3	e4.7
2	3.0	2.9	2.8	259	215	609	166	64	53	20	5.4	e4.7
3	3.1	2.7	3.6	167	201	555	156	63	79	19	5.5	e4.7
4	3.1	2.5	3.1	123	187	498	147	65	48	17	5.4	e4.8
5	3.1	2.7	3.0	98	189	452	139	60	53	e15	5.3	e4.8
6	3.1	2.7	3.7	94	179	413	141	60	52	e15	5.1	e4.8
7	3.0	2.6	4.2	925	175	378	137	59	43	15	5.2	e4.8
8	3.0	2.5	3.5	620	320	350	132	57	35	13	4.9	e4.8
9	3.0	2.5	3.3	385	349	324	127	55	32	12	4.8	e4.8
10	3.0	2.5	3.4	389	324	304	124	56	29	12	5.0	e4.8
11	3.0	2.5	5.9	286	299	286	119	55	29	11	5.0	e4.8
12	3.1	2.7	12	297	268	268	116	47	35	10	4.9	e4.8
13	3.1	3.1	8.7	2600	249	254	111	41	33	9.5	4.8	e4.8
14	3.1	2.9	6.9	3270	235	244	108	41	29	8.9	4.8	e4.8
15	3.1	2.9	6.1	1330	222	232	106	42	28	9.1	4.7	e4.7
16	3.1	2.9	5.2	1160	215	222	102	41	28	8.0	4.7	e4.7
17	3.1	2.9	4.9	1370	231	220	107	39	28	9.2	4.6	e4.7
18	3.1	2.9	4.8	1470	441	209	124	32	e26	9.4	4.6	e4.7
19	3.1	2.9	4.6	933	2140	197	e104	30	e23	9.6	e4.6	e4.7
20	3.1	3.0	4.5	723	2050	188	e99	27	25	9.1	e4.6	e4.7
21	3.3	3.0	4.1	798	1380	179	91	27	28	8.6	e4.6	e4.7
22	3.1	3.0	3.9	859	1050	180	90	26	28	8.3	e4.6	e4.7
23	3.1	3.0	3.9	659	1040	178	88	27	30	7.9	e4.6	e4.6
24	3.0	2.9	3.9	540	1050	197	86	26	27	7.3	e4.6	e4.6
25	3.1	2.8	3.9	458	942	192	82	26	24	7.0	e4.6	e4.6
26	3.1	2.8	3.8	396	1130	283	79	26	22	6.5	e4.6	e4.6
27	3.2	2.8	3.8	350	900	248	76	26	21	6.1	e4.6	e4.5
28	3.0	3.0	6.2	314	780	246	75	26	e20	5.9	e4.6	4.5
29	3.0	2.9	65	286	---	213	75	27	e20	5.5	e4.7	4.4
30	3.1	2.9	197	264	---	190	69	28	e19	5.4	e4.7	4.4
31	3.0	---	133	245	---	181	---	29	---	5.2	e4.7	---
TOTAL	95.2	84.3	525.5	21842	16989	9167	3356	1295	995	324.5	150.1	140.7
MEAN	3.07	2.81	17.0	705	607	296	112	41.8	33.2	10.5	4.84	4.69
MAX	3.3	3.1	197	3270	2140	677	180	67	79	20	5.5	4.8
MIN	2.9	2.5	2.8	94	175	178	69	26	19	5.2	4.6	4.4
AC-FT	189	167	1040	43320	33700	18180	6660	2570	1970	644	298	279

e Estimated.

11143200 CARMEL RIVER AT ROBLES DEL RIO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.98	14.3	57.2	177	293	263	168	53.3	16.6	5.01	1.49	1.35
MAX	23.3	135	480	769	1206	1855	1071	410	129	50.9	13.4	10.6
(WY)	1984	1984	1984	1969	1969	1983	1958	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.26	.000	.011	.000	.000	.000	.000	.000	.000
(WY)	1960	1960	1960	1991	1977	1977	1977	1977	1961	1959	1957	1957

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1957 - 1993	
ANNUAL TOTAL	19642.6		54964.3			
ANNUAL MEAN	53.7		151		86.6	
HIGHEST ANNUAL MEAN					442	1983
LOWEST ANNUAL MEAN					.050	1977
HIGHEST DAILY MEAN	2090	Feb 15	3270	Jan 14	6260	Mar 1 1983
LOWEST DAILY MEAN	2.5	Nov 4	2.5	Nov 4	.00	Aug 1 1957
ANNUAL SEVEN-DAY MINIMUM	2.6	Nov 4	2.6	Nov 4	.00	Aug 1 1957
INSTANTANEOUS PEAK FLOW			5100	Jan 14	8380	Feb 28 1983
INSTANTANEOUS PEAK STAGE			11.17	Jan 14	11.49	Feb 28 1983
ANNUAL RUNOFF (AC-FT)	38960		109000		62700	
10 PERCENT EXCEEDS	133		361		205	
50 PERCENT EXCEEDS	5.1		20		4.1	
90 PERCENT EXCEEDS	2.8		3.0		.00	

11143250 CARMEL RIVER NEAR CARMEL, CA

LOCATION.--Lat 36°32'20", long 121°52'25", in Canada de la Segunda Grant, Monterey County, Hydrologic Unit 18060012, on right bank 0.3 mi downstream from Potrero Canyon and 3 mi east of Carmel.

DRAINAGE AREA.--246 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1962 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 45 ft above sea level, from topographic map.

REMARKS.--Records fair. Low flow regulated by Los Padres Reservoir, usable capacity, 2,180 acre-ft, and San Clemente Reservoir, usable capacity, 796 acre-ft. Diversion from San Clemente Reservoir for municipal supply amounted to 4,320 acre-ft for the current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,590 ft^3/s, Feb. 28, 1983, gage height, 18.22 ft, from rating curve extended above 2,800 ft^3/s on basis of slope-area measurement at gage height 17.35 ft; no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	1045	1,210	6.45	Feb. 19	1245	2,870	9.82
Jan. 14	0815	*4,940	*12.76	Feb. 26	0845	1,550	6.96

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	3.2	363	825	219	74	32	6.9	.00	.00
2	.00	.00	.00	134	341	736	203	71	53	5.6	.00	.00
3	.00	.00	.00	85	323	657	190	73	47	4.9	.00	.00
4	.00	.00	.00	54	308	580	175	71	67	4.9	.00	.00
5	.00	.00	.00	39	299	519	169	70	53	4.9	.00	.00
6	.00	.00	.00	31	292	469	160	66	57	4.9	.00	.00
7	.00	.00	.00	697	279	427	158	65	54	4.3	.00	.00
8	.00	.00	.00	722	463	392	152	61	43	3.1	.00	.00
9	.00	.00	.00	518	537	362	146	62	40	1.6	.00	.00
10	.00	.00	.00	563	504	336	139	60	34	.50	.00	.00
11	.00	.00	.00	428	462	315	130	64	31	.00	.00	.00
12	.00	.00	.00	408	421	296	130	57	33	.70	.00	.00
13	.00	.00	.00	2400	387	278	127	49	35	.00	.00	.00
14	.00	.00	.00	3380	364	265	123	47	30	.00	.00	.00
15	.00	.00	.00	1370	346	247	119	47	29	.00	.00	.00
16	.00	.00	.00	1220	331	236	117	45	29	.00	.00	.00
17	.00	.00	.00	1450	336	233	119	44	28	.00	.00	.00
18	.00	.00	.00	1620	527	220	140	39	28	.00	.00	.00
19	.00	.00	.00	1050	2230	206	122	35	26	.04	.00	.00
20	.00	.00	.00	882	2300	196	112	32	23	1.0	.00	.00
21	.00	.00	.00	965	1610	189	106	30	24	1.0	.00	.00
22	.00	.00	.00	1030	1190	187	102	30	23	.18	.00	.00
23	.00	.00	.00	892	1130	185	99	29	e22	.00	.00	.00
24	.00	.00	.00	787	1200	203	96	30	e20	.00	.00	.00
25	.00	.00	.00	700	1050	205	94	31	e18	.00	.00	.00
26	.00	.00	.00	622	1420	391	89	30	e16	.00	.00	.00
27	.00	.00	.00	553	1130	316	86	30	e14	.00	.00	.00
28	.00	.00	.00	497	946	298	83	28	e12	.00	.00	.00
29	.00	.00	.00	454	---	258	81	27	e10	.00	.00	.00
30	.00	.00	.00	420	---	235	78	27	9.5	.00	.00	.00
31	.00	---	.00	390	---	221	---	29	---	.00	.00	---
TOTAL	0.00	0.00	0.00	24364.2	21089	10483	3864	1453	940.5	44.52	0.00	0.00
MEAN	.000	.000	.000	786	753	338	129	46.9	31.3	1.44	.000	.000
MAX	.00	.00	.00	3380	2300	825	219	74	67	6.9	.00	.00
MIN	.00	.00	.00	3.2	279	185	78	27	9.5	.00	.00	.00
AC-FT	.00	.00	.00	48330	41830	20790	7660	2880	1870	88	.00	.00

e Estimated.

11143250 CARMEL RIVER NEAR CARMEL, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.89	10.4	62.5	224	348	316	181	66.5	18.0	3.70	.69	.25
MAX	22.3	110	479	1034	1754	2196	1006	533	130	51.4	13.1	3.80
(WY)	1984	1984	1983	1969	1969	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1965	1965	1969	1977	1977	1977	1977	1977	1968	1966	1964	1964

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1962 - 1993	
ANNUAL TOTAL	17931.18		62238.22			
ANNUAL MEAN	49.0		171		101	
HIGHEST ANNUAL MEAN					508	1983
LOWEST ANNUAL MEAN					.000	1977
HIGHEST DAILY MEAN	2450	Feb 15	3380	Jan 14	8000	Mar 1 1983
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 6 1962
ANNUAL SEVEN-DAY MINIMUM	.00	Jen 1	.00	Oct 1	.00	Jul 9 1964
INSTANTANEOUS PEAK FLOW			4940	Jan 14	9590	Feb 28 1983
INSTANTANEOUS PEAK STAGE			12.76	Jan 14	18.22	Feb 28 1983
ANNUAL RUNOFF (AC-FT)	35570		123400		73500	
10 PERCENT EXCEEDS	132		510		256	
50 PERCENT EXCEEDS	.00		4.9		.52	
90 PERCENT EXCEEDS	.00		.00		.00	

11143250 CARMEL RIVER NEAR CARMEL, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954-66, 1990, December 1991 to current yeer.
CHEMICAL DATA: Water yeers 1954-66.
SEDIMENT DATA: Water years 1990, December 1991 to current year.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
JAN											
08...	1450	713	7.0	63	121	29	--	--	--	--	--
13...	1725	2690	11.5	940	6830	35	--	--	--	--	--
21...	1600	953	13.0	431	1110	7	10	19	58	96	100
MAR											
03...	1415	646	12.0	63	110	34	--	--	--	--	--
25...	1205	198	13.0	5	2.7	71	--	--	--	--	--
MAY											
11...	1340	64	15.5	3	0.52	72	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	NUMBER OF SAM-PLING POINTS (COUNT)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM
JAN								
06...	1345	1	27	10.0	--	1	2	7
06...	1346	1	27	10.0	--	--	--	2
06...	1347	1	27	10.0	--	--	1	7
06...	1348	1	27	10.0	--	--	--	4
06...	1349	1	27	10.0	--	--	1	6
06...	1350	1	27	10.0	--	--	--	5
06...	1351	1	27	10.0	--	1	1	4
06...	1352	1	27	10.0	--	1	1	1
MAR								
25...	1240	1	202	13.0	--	--	--	1
25...	1241	1	202	13.0	--	--	--	2
25...	1242	1	202	13.0	--	--	1	2
25...	1243	1	202	13.0	--	--	1	3
25...	1244	1	202	13.0	--	--	--	--
25...	1245	1	202	13.0	--	--	--	--
25...	1246	1	202	13.0	10	40	83	96
MAY								
11...	1235	1	64	15.5	--	--	2	4
11...	1240	1	64	15.5	--	--	1	3
11...	1243	1	64	15.5	--	--	--	2
11...	1246	1	64	15.5	--	--	--	2
11...	1250	1	64	15.5	--	--	1	2
11...	1255	1	64	15.5	--	1	2	2
11...	1302	1	64	15.5	4	20	44	52
11...	1315	1	64	15.5	15	60	90	98

11143250 CARMEL RIVER NEAR CARMEL, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
JAN								
06...	32	55	67	72	82	89	100	--
06...	25	89	99	100	--	--	--	--
06...	21	37	52	67	95	100	--	--
06...	14	25	34	53	86	100	--	--
06...	17	28	37	48	72	100	--	--
06...	14	22	30	42	69	100	--	--
06...	18	36	52	67	96	100	--	--
06...	34	86	96	98	100	--	--	--
MAR								
25...	22	73	95	99	100	--	--	--
25...	8	16	21	27	43	91	100	--
25...	9	15	19	26	46	72	100	--
25...	10	22	29	36	48	87	100	--
25...	2	3	5	11	33	78	100	--
25...	4	76	100	--	--	--	--	--
25...	98	100	--	--	--	--	--	--
MAY								
11...	20	58	76	85	96	100	--	--
11...	13	24	32	38	51	90	100	--
11...	8	12	15	19	29	66	100	--
11...	8	12	15	21	33	60	88	100
11...	12	18	23	32	51	75	100	--
11...	7	23	34	41	55	88	100	--
11...	60	98	100	--	--	--	--	--
11...	99	100	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
JAN									
06...	1245	1000	1150	0.250	0	1235	1248	30	1.5
06...	1305	1000	1150	0.250	0	1258	1310	30	1.5
08...	1550	1000	1100	0.250	0	1530	1615	20	4.0
08...	1650	1000	1100	0.250	0	1630	1715	20	4.0
13...	1600	1000	1100	0.250	0	--	--	10	3.0
13...	1700	1000	1100	0.250	0	--	--	10	3.0
21...	1620	1000	1100	0.250	0	1615	1628	10	5.0
21...	1640	1000	1100	0.250	0	1632	1646	10	5.0
MAR									
03...	1450	1000	1100	0.250	0	1442	1500	15	3.0
03...	1515	1000	1100	0.250	0	1505	1517	15	3.0
25...	1215	1000	1150	0.250	0	1215	1220	15	3.0
25...	1230	1000	1150	0.250	0	1225	1237	15	3.0

11143250 CARMEL RIVER NEAR CARMEL, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VER-TICALS IN COM-POSITE SAMPLE (NUM)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
JAN									
06...	2	21	21	5.00	27	10.0	0.005	0.13	1
06...	2	21	21	5.00	27	10.0	0.004	0.13	2
08...	2	16	16	4.00	700	7.0	9.51	698	--
08...	2	16	16	4.00	686	7.0	12.3	698	1
13...	2	21	21	--	2960	11.5	31.7	2260	1
13...	2	21	21	--	2740	11.5	40.1	2260	1
21...	2	12	12	7.00	948	13.0	45.1	3210	1
21...	2	12	12	7.00	945	13.0	61.9	3210	1
MAR									
03...	2	21	21	2.00	651	12.0	6.95	616	--
03...	2	21	21	2.00	652	12.0	12.6	616	--
25...	2	18	18	1.00	198	13.0	0.73	61	--
25...	2	18	18	1.00	198	13.0	1.54	61	--

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
JAN								
06...	6	57	94	100	--	--	--	--
06...	8	56	95	100	--	--	--	--
08...	5	26	51	67	80	93	100	--
08...	9	40	67	81	90	96	100	--
13...	4	16	32	42	49	62	85	100
13...	5	18	36	50	60	72	90	100
21...	9	36	64	80	87	95	100	--
21...	7	36	67	80	86	93	99	100
MAR								
03...	2	29	71	87	94	98	100	--
03...	3	25	64	82	91	96	100	--
25...	4	34	86	96	98	98	100	--
25...	6	37	85	96	98	100	--	--

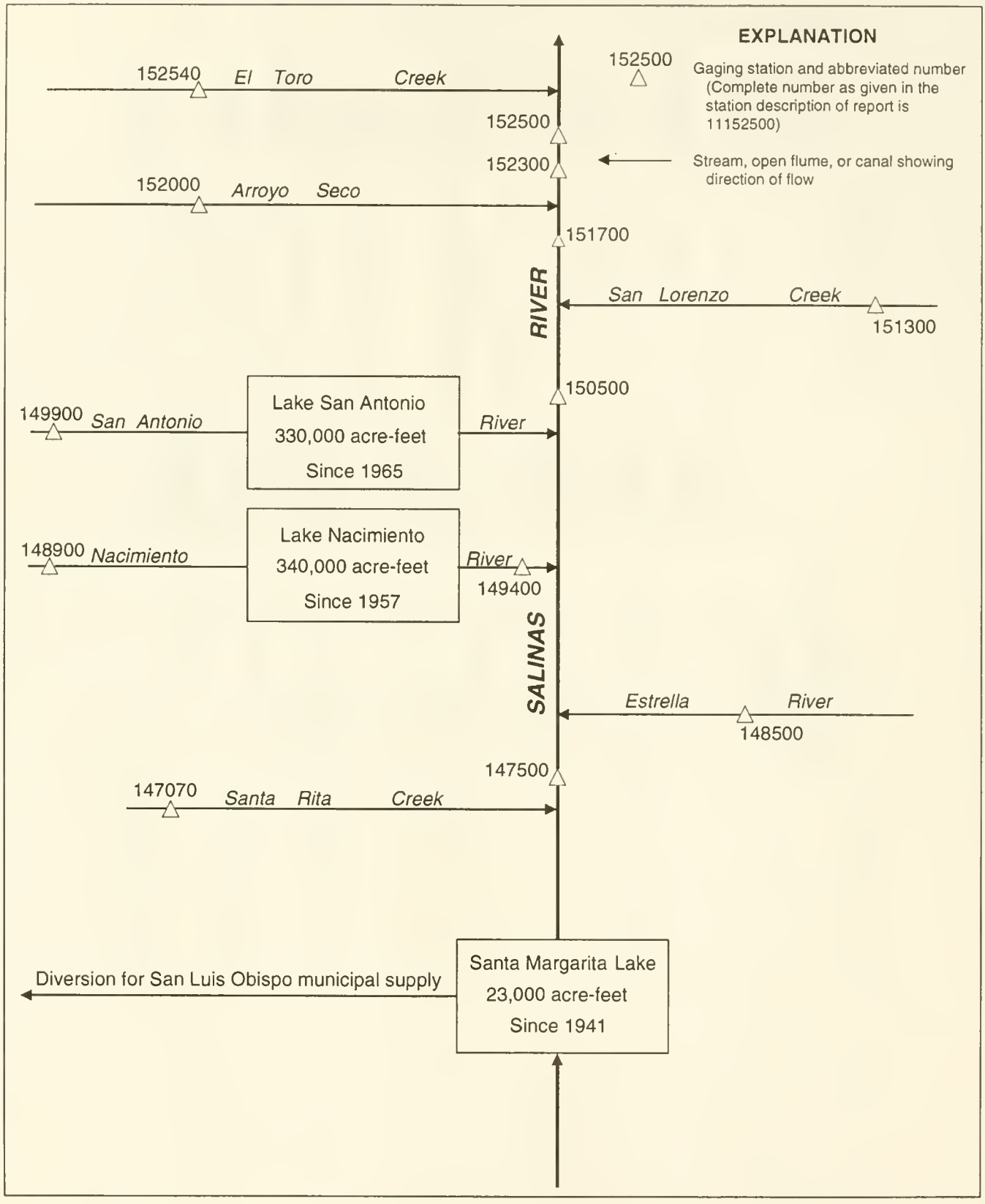

Figure 23. Diversions and storage in Salinas River basin.

11147070 SANTA RITA CREEK NEAR TEMPLETON, CA

LOCATION.--Lat 35°31'26", long 120°45'54", in Asuncion Grent, San Luis Obispo County, Hydrologic Unit 18060005, on left benk 1.6 mi upstream from mouth and 4 mi west of Templeton.

DRAINAGE AREA.--18.2 mi^2.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 860 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Some regulation by stockponds and small diversions by irrigation pumps upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,060 ft^3/s, Jan. 19, 1969, gage height, 11.12 ft in gage well, 11.75 ft from floodmarks, from rating curve extended above 1,300 ft^3/s on basis of slope-area measurement of peak flow; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	0215	721	6.17	Feb. 22	2300	1,090	6.87
Jan. 14	0045	*2,940	*8.95				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	2.3	.00	36	16	45	36	4.9	1.9	.05	.00	.00
2	.00	.24	.00	48	16	38	32	4.6	1.7	.05	.00	.00
3	.00	.09	.01	23	14	36	30	4.0	1.6	.04	.00	.00
4	.00	.06	.00	17	13	33	27	4.0	2.0	.07	.00	.00
5	.00	.06	.00	14	14	30	17	3.3	5.2	.10	.00	.00
6	.00	.05	.02	60	14	27	15	3.3	2.6	.11	.00	.00
7	.00	.04	105	386	52	25	13	3.3	2.0	.09	.00	.00
8	.00	.04	11	131	209	22	13	2.9	1.8	.10	.00	.00
9	.00	.03	5.9	60	152	20	12	2.7	1.5	.16	.00	.00
10	.00	.02	4.0	277	86	19	11	2.7	1.4	.20	.00	.00
11	.00	.02	69	87	61	17	11	2.7	1.2	.25	.00	.00
12	.00	.02	15	154	44	16	10	2.9	.97	.33	.00	.00
13	.00	.02	8.2	562	37	14	9.6	2.6	.84	.30	.00	.00
14	.00	.02	4.8	724	33	13	9.1	2.5	.67	.26	.00	.00
15	.00	.02	3.4	386	28	12	8.7	2.4	.55	.19	.00	.00
16	.00	.02	2.4	290	25	11	8.9	2.3	.41	.13	.00	.00
17	.00	.02	5.0	350	24	11	9.4	2.3	.31	.07	.00	.00
18	.00	.02	9.9	215	64	10	12	2.2	.33	.06	.00	.00
19	.00	.01	4.6	111	63	9.6	10	2.2	.32	.06	.00	.00
20	.00	.01	2.9	82	79	9.1	8.9	2.4	.49	.04	.00	.00
21	.00	.01	2.3	89	64	8.7	8.6	2.2	.58	.04	.00	.00
22	.00	.01	2.2	114	121	8.7	8.2	1.9	.56	.03	.00	.00
23	3.5	.01	1.7	68	465	8.3	7.7	1.9	.27	.03	.00	.00
24	7.7	.01	1.7	51	159	11	7.6	2.1	.17	.03	.00	.00
25	8.7	.00	1.5	41	101	144	7.1	3.4	.14	.02	.00	.00
26	9.7	.00	1.4	36	126	180	6.9	2.9	.13	.02	.00	.00
27	3.3	.00	1.4	31	76	118	6.6	2.6	.16	.01	.00	.00
28	.16	.00	17	26	58	141	6.3	2.3	.13	.00	.00	.00
29	1.1	.00	140	23	---	74	5.8	1.9	.10	.00	.00	.00
30	20	.00	61	20	---	51	5.7	1.8	.07	.00	.00	.00
31	15	---	23	18	---	40	---	1.9	---	.00	.00	---
TOTAL	69.16	3.15	504.33	4530	2214	1202.4	374.1	85.1	30.10	2.84	0.00	0.00
MEAN	2.23	.10	16.3	146	79.1	38.8	12.5	2.75	1.00	.092	.000	.000
MAX	20	2.3	140	724	465	180	36	4.9	5.2	.33	.00	.00
MIN	.00	.00	.00	14	13	8.3	5.7	1.8	.07	.00	.00	.00
AC-FT	137	6.2	1000	8990	4390	2380	742	169	60	5.6	.00	.00

11147070 SANTA RITA CREEK NEAR TEMPLETON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.35	3.98	15.1	39.6	49.7	37.0	15.8	2.94	.67	.13	.026	.029
MAX	4.35	29.0	131	227	207	185	114	24.2	3.72	1.29	.68	.55
(WY)	1983	1983	1967	1969	1962	1983	1982	1983	1983	1983	1983	1967
MIN	.000	.000	.000	.000	.000	.22	.10	.015	.000	.000	.000	.000
(WY)	1962	1962	1977	1991	1991	1977	1977	1990	1972	1966	1962	1962

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1962 - 1993	
ANNUAL TOTAL	3894.32		9015.18			
ANNUAL MEAN	10.6		24.7		13.6	
HIGHEST ANNUAL MEAN					52.7	1983
LOWEST ANNUAL MEAN					.16	1977
HIGHEST DAILY MEAN	480	Feb 15	724	Jan 14	2190	Dec 6 1966
LOWEST DAILY MEAN	.00	Jul 9	.00	Oct 1	.00	Oct 1 1961
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 21	.00	Oct 1	.00	Oct 1 1961
INSTANTANEOUS PEAK FLOW			2940	Jan 14	6060	Jan 19 1969
INSTANTANEOUS PEAK STAGE			8.95	Jan 14	11.12	Jan 19 1969
ANNUAL RUNOFF (AC-FT)	7720		17880		9860	
10 PERCENT EXCEEDS	19		63		22	
50 PERCENT EXCEEDS	.39		1.9		.24	
90 PERCENT EXCEEDS	.00		.00		.00	

11147500 SALINAS RIVER AT PASO ROBLES, CA

LOCATION.--Lat 35°37'43", long 120°41'00", in Peso de Robles Grant, San Luis Obispo County, Hydrologic Unit 18060005, on left bank at upstream side of 13th Street Bridge in Paso Robles and 3.5 mi upstream from Huerhuero Creek.

DRAINAGE AREA.--390 mi^2.

PERIOD OF RECORD.--October 1939 to September 1965, October 1969 to current year.
CHEMICAL DATA: Water years 1963-66.
SEDIMENT DATA: June 1990.

REVISED RECORDS.--WSP 981: 1942.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 670.61 ft above sea level. Prior to June 14, 1951, nonrecording gage at same site and datum.

REMARKS.--Records fair. Low flows regulated by Santa Margarita Lake 32 mi upstream beginning in December 1941, usable capacity, 23,000 acre-ft. Diversion from Santa Margarita Lake for San Luis Obispo municipal supply amounted to 5,610 acre-ft for the current year. Small diversions for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,500 ft^3/s, Feb. 16, 1980, gage height, 15.99 ft, from rating curve extended above 11,000 ft^3/s; maximum gage height, 18.80 ft, Jan. 14, 1993; no flow for many days in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 25, 1969, reached a stage of 23.8 ft from floodmarks, discharge, 28,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 850 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	0945	2,920	8.92	Feb. 23	0900	8,010	13.25
Jan. 14	0445	*14,900	*18.80	Mar. 25	2400	2,900	8.90
Feb. 8	1300	2,310	8.32				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	.00	.00	66	199	1060	740	63	18	.00	.00	.00
2	e.00	.00	.00	125	182	896	647	55	16	.00	.00	.00
3	e.00	.00	.00	67	170	793	560	51	15	.00	.00	.00
4	e.00	.00	.00	31	160	710	463	47	14	.00	.00	.00
5	e.00	.00	.00	25	155	646	369	45	16	.00	.00	.00
6	e.00	.00	.00	29	147	560	325	47	18	.00	.00	.00
7	e.00	.00	.00	1690	155	502	308	42	17	.00	.00	.00
8	e.00	.00	.00	1120	1650	437	286	40	14	.00	.00	.00
9	e.00	.00	.00	622	1510	391	277	36	11	.00	.00	.00
10	e.00	.00	.00	1160	1250	364	256	34	10	.00	.00	e.00
11	e.00	.00	.00	750	869	346	243	33	8.8	.00	.00	e.00
12	e.00	.00	.00	711	747	324	231	34	8.0	.00	.00	e.00
13	e.00	.00	.00	2250	609	313	214	33	6.8	.00	.00	e.00
14	e.00	.00	.00	7850	529	309	200	32	5.9	.00	.00	.00
15	e.00	.00	.00	4500	437	297	187	32	4.6	.00	.00	.00
16	e.00	.00	.00	3760	376	271	172	30	3.9	.00	.00	.00
17	.00	.00	.00	3470	345	256	168	29	7.7	.00	.00	.00
18	.00	.00	.00	4210	791	250	179	28	1.1	.00	.00	.00
19	.00	.00	.00	2610	1900	223	165	27	.18	.00	.00	.00
20	.00	.00	.00	1600	1950	209	145	25	.00	.00	.00	.00
21	.00	.00	.00	1230	1480	193	133	24	.00	.00	.00	.00
22	.00	.00	.00	1060	1210	185	125	23	.00	.00	.00	.00
23	.00	.00	.00	831	5790	176	118	25	.00	.00	.00	.00
24	.00	.00	.00	704	3670	186	108	26	.00	.00	.00	.00
25	.00	.00	.00	580	2180	909	101	25	.00	.00	.00	.00
26	.00	.00	.00	465	2220	2080	95	24	.00	.00	.00	.00
27	.00	.00	.00	378	1720	1430	87	24	.00	.00	.00	.00
28	.00	.00	.12	296	1330	1990	82	24	.00	.00	.00	.00
29	.00	.00	253	268	---	1320	76	20	.00	.00	.00	.00
30	.00	.00	233	251	---	946	71	19	.00	.00	.00	.00
31	.00	---	96	224	---	865	---	18	---	.00	.00	---
TOTAL	0.00	0.00	582.12	42933	33731	19437	7131	1015	195.98	0.00	0.00	0.00
MEAN	.000	.000	18.8	1385	1205	627	238	32.7	6.53	.000	.000	.000
MAX	.00	.00	253	7850	5790	2080	740	63	18	.00	.00	.00
MIN	.00	.00	.00	25	147	176	71	18	.00	.00	.00	.00
AC-FT	.00	.00	1150	85160	66910	38550	14140	2010	389	.00	.00	.00

e Estimated.

11147500 SALINAS RIVER AT PASO ROBLES, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.82	5.28	47.8	207	365	344	163	22.2	2.37	.27	.063	1.01
MAX	117	86.0	581	1409	2026	1978	1980	247	30.5	4.84	1.91	44.0
(WY)	1943	1983	1983	1983	1980	1983	1958	1983	1941	1941	1942	1942
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1941	1940	1940	1948	1948	1961	1961	1959	1947	1940	1940	1940

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1940 - 1993	
ANNUAL TOTAL	29197.77		105025.10			
ANNUAL MEAN	79.8		288		95.2	
HIGHEST ANNUAL MEAN					526	1983
LOWEST ANNUAL MEAN					.000	1961
HIGHEST DAILY MEAN	4520	Feb 15	7850	Jan 14	11800	Feb 18 1980
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Nov 1 1939
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 7	.00	Oct 1	.00	Nov 1 1939
INSTANTANEOUS PEAK FLOW			14900	Jan 14	18500	Feb 16 1980
INSTANTANEOUS PEAK STAGE			18.80	Jan 14	18.80	Jan 14 1993
ANNUAL RUNOFF (AC-FT)	57910		208300		68990	
10 PERCENT EXCEEDS	143		845		144	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

11148500 ESTRELLA RIVER NEAR ESTRELLA, CA

LOCATION.--Lat 35°43'02", long 120°38'21", in NW 1/4 NW 1/4 sec.36, T.25 S., R.12 E., San Luis Obispo County, Hydrologic Unit 18060004, on right bank 0.2 mi downstream from mouth of Ranchito Canyon and 1.9 mi northwest of Estrella.

DRAINAGE AREA.--922 mi^2, not including Carrizo Plains.

PERIOD OF RECORD.--October 1954 to December 1992. Discharge measurements and estimated peak data only, January 1993 to September 1993. Prior to October 1960, published as Estrella Creek near Estrella.
SEDIMENT DATA: June 1990.

REVISED RECORDS.--WSP 2129: 1969, drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 671.59 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Records poor. No regulation; pumpage from wells along river for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft^3/s, Feb. 24, 1969, gage height, 10.4 ft, from floodmarks, by slope-area measurement of peak flow; maximum gage height, 10.9 ft, Jan. 25, 1969, from floodmarks; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 14	1900	2,600e	4.28e	Feb. 23	1830	*3,210	*4.59
Feb. 9	0930	430	2.75	Mar. 26	2000	614	2.83

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	e3.2	e65	e100	e.71	.00	.00	.00	.00
2	.00	.00	.00	.00	e3.0	e50	e66	e.59	.00	.00	.00	.00
3	.00	.00	.00	.00	e2.9	e41	41	e.49	.00	.00	.00	.00
4	.00	.00	.00	.00	e2.7	e33	25	e.42	.00	.00	.00	.00
5	.00	.00	.00	.00	e5.0	e27	16	e.36	.00	.00	.00	.00
6	.00	.00	.00	.00	e10	e22	13	e.30	.00	.00	.00	.00
7	.00	.00	.00	.00	e21	e19	10	e.25	.00	.00	.00	.00
8	.00	.00	.00	.00	32	e17	8.6	e.20	.00	.00	.00	.00
9	.00	.00	.00	.00	195	e14	11	e.16	.00	.00	.00	.00
10	.00	.00	.00	.00	58	e13	11	e.10	.00	.00	.00	.00
11	.00	.00	.00	.00	21	e12	10	e.05	.00	.00	.00	.00
12	.00	.00	.00	.00	16	e10	8.3	e.01	.00	.00	.00	.00
13	.00	.00	.00	22	19	e9.6	6.7	e.00	.00	.00	.00	.00
14	.00	.00	.00	e1170	e13	e8.7	7.6	.00	.00	.00	.00	.00
15	.00	.00	.00	e1340	e9.8	e8.1	7.4	.00	.00	.00	.00	.00
16	.00	.00	.00	e540	e7.7	e7.4	7.6	.00	.00	.00	.00	.00
17	.00	.00	.00	243	e6.0	e7.1	9.0	.00	.00	.00	.00	.00
18	.00	.00	.00	614	e33	e6.6	9.2	.00	.00	.00	.00	.00
19	.00	.00	.00	270	e438	e6.1	7.8	.00	.00	.00	.00	.00
20	.00	.00	.00	62	609	e5.7	5.9	.00	.00	.00	.00	.00
21	.00	.00	.00	e13	483	e5.5	5.8	.00	.00	.00	.00	.00
22	.00	.00	.00	e11	218	e5.2	5.3	.00	.00	.00	.00	.00
23	.00	.00	.00	e8.8	1910	6.2	5.3	.00	.00	.00	.00	.00
24	.00	.00	.00	e7.6	1040	17	4.6	.00	.00	.00	.00	.00
25	.00	.00	.00	e6.6	402	95	3.7	.00	.00	.00	.00	.00
26	.00	.00	.00	e5.8	e200	385	3.1	.00	.00	.00	.00	.00
27	.00	.00	.00	e5.2	e125	411	2.2	.00	.00	.00	.00	.00
28	.00	.00	.00	e4.6	e86	285	e1.6	.00	.00	.00	.00	.00
29	.00	.00	.00	e4.2	---	e386	e1.1	.00	.00	.00	.00	.00
30	.00	.00	.00	e3.8	---	e230	e.85	.00	.00	.00	.00	.00
31	.00	---	.00	e3.5	---	e160	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	4335.10	5969.3	2368.2	414.65	3.64	0.00	0.00	0.00	0.00
MEAN	.000	.000	.000	140	213	76.4	13.8	.12	.000	.000	.000	.000
MAX	.00	.00	.00	1340	1910	411	100	.71	.00	.00	.00	.00
MIN	.00	.00	.00	.00	2.7	5.2	.85	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	8600	11840	4700	822	7.2	.00	.00	.00	.00

e Estimated.

11148500 ESTRELLA RIVER NEAR ESTRELLA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.041	1.19	13.0	43.5	134	76.9	31.1	1.63	.14	.000	.000	.26
MAX	.93	29.6	371	910	1671	1016	670	25.1	2.58	.000	.000	6.53
(WY)	1977	1973	1967	1969	1969	1978	1958	1983	1969	1955	1955	1976
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1955	1956	1960	1975	1976	1976	1972	1961	1956	1955	1955	1955

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1955 - 1993	
ANNUAL TOTAL	4921.01		13090.89			
ANNUAL MEAN	13.4		35.9		24.5	
HIGHEST ANNUAL MEAN					256	1969
LOWEST ANNUAL MEAN					.000	1989
HIGHEST DAILY MEAN	1460	Feb 13	1910	Feb 23	18500	Feb 10 1978
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1954
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 7	.00	Oct 1	.00	Oct 1 1954
INSTANTANEOUS PEAK FLOW			3210	Feb 23	32500	Feb 24 1969
INSTANTANEOUS PEAK STAGE			4.59	Feb 23	10.90	Jan 25 1969
ANNUAL RUNOFF (AC-FT)	9760		25970		17740	
10 PERCENT EXCEEDS	1.8		26		6.8	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

11148900 NACIMIENTO RIVER BELOW SAPAQUE CREEK, NEAR BRYSON, CA

LOCATION.--Lat 35°47'19", long 121°05'34", in SW 1/4 NE 1/4 sec.3, T.25 S., R.8 E., San Luis Obispo County, Hydrologic Unit 18060005, on left bank just downstream from Sapaque Creek and 1.4 mi south of Bryson.

DRAINAGE AREA.--162 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1971 to current year.

REVISED RECORDS.--WDR CA-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 800 ft above sea level, from topographic map.

REMARKS.--Records fair. No storage or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,600 ft^3/s, Jan. 14, 1993, gage height, 32.14 ft, from rating curve extended above 7,900 ft^3/s on basis of slope-area measurement at 32.00 gage height; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 14	0215	*57,600	*32.14				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	2.6	1.6	470	428	733	202	e54	23	3.8	.26	.00
2	.00	2.0	2.1	610	400	621	176	e52	22	3.3	.29	.00
3	.00	1.7	5.9	282	376	545	158	e49	21	2.9	.36	.00
4	.00	1.5	7.3	185	354	493	148	e47	20	2.7	.34	.00
5	.00	1.3	12	142	403	437	134	e46	25	2.7	.31	.00
6	.00	1.1	75	720	373	399	123	e44	28	2.6	.27	.00
7	.00	.81	316	3950	368	355	115	e43	24	2.6	.21	.00
8	.00	.77	66	1550	2710	319	110	e41	21	2.4	.16	.00
9	.00	.69	90	791	1750	e291	e102	e39	20	2.0	.11	.00
10	.00	.63	132	1310	1420	e270	e97	e38	e18	1.9	.06	.00
11	.00	.57	615	599	1160	243	e92	e36	16	1.6	.04	.00
12	.00	.53	160	668	986	225	e90	e35	15	1.5	.03	.00
13	.00	.51	88	5610	875	208	e85	e34	14	1.3	.02	.00
14	.00	.51	63	18900	804	197	e83	e33	13	1.2	.03	.00
15	.00	.52	50	6310	737	180	e82	e32	12	1.1	.04	.00
16	.00	.56	43	4310	685	170	e100	e31	11	.97	.04	.00
17	.00	.59	38	4480	705	174	113	e30	10	.89	.02	.00
18	.00	.65	44	4760	1970	167	128	30	9.8	.77	.00	.00
19	.00	.60	39	2150	2910	149	114	29	9.1	.67	.00	.00
20	.00	.63	35	1570	2170	139	e102	28	9.2	.59	.00	.00
21	.00	.59	32	2230	1460	131	e94	27	8.3	.50	.00	.00
22	.00	.65	30	2040	1180	122	e87	26	7.9	.50	.00	.00
23	.00	.74	28	1470	2860	108	e83	25	7.6	.54	.00	.00
24	.00	.84	26	1160	1550	126	e77	24	7.4	.52	.00	.00
25	.00	1.1	25	963	1220	344	e73	29	6.9	.50	.00	.00
26	.00	1.4	24	818	2060	539	e69	33	6.2	.52	.00	.00
27	.00	1.4	23	715	1190	362	e66	32	5.2	.50	.00	.00
28	.00	1.2	332	634	903	600	e63	31	4.4	.45	.00	.00
29	.00	1.2	1140	568	---	362	e59	27	4.2	.45	.00	.00
30	8.0	1.2	680	513	---	274	e57	25	4.1	.46	.00	.00
31	2.2	---	298	467	---	226	---	24	---	.35	.00	---
TOTAL	10.20	29.09	4520.9	70945	34007	9509	3082	1074	403.3	42.78	2.59	0.00
MEAN	.33	.97	146	2289	1215	307	103	34.6	13.4	1.38	.084	.000
MAX	8.0	2.6	1140	18900	2910	733	202	54	28	3.8	.36	.00
MIN	.00	.51	1.6	142	354	108	57	24	4.1	.35	.00	.00
AC-FT	20	58	8970	140700	67450	18860	6110	2130	800	85	5.1	.00

e Estimated.

11148900 NACIMIENTO RIVER BELOW SAPAQUE CREEK, NEAR BRYSON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.63	62.2	177	541	682	509	175	42.0	9.48	1.89	.18	.050
MAX	4.90	413	911	2440	2057	2048	1142	318	43.1	11.2	2.86	.77
(WY)	1973	1973	1983	1978	1973	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	3.82	16.0	4.20	1.61	.11	.000	.000	.000
(WY)	1972	1978	1991	1991	1991	1977	1977	1990	1977	1972	1972	1972

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1971 - 1993	
ANNUAL TOTAL	39710.23		123625.86			
ANNUAL MEAN	108		339		181	
HIGHEST ANNUAL MEAN					623	1983
LOWEST ANNUAL MEAN					5.74	1977
HIGHEST DAILY MEAN	5960	Feb 12	18900	Jan 14	18900	Jan 14 1993
LOWEST DAILY MEAN	.00	Jul 16	.00	Oct 1	.00	Sep 16 1971
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 16	.00	Oct 1	.00	Sep 16 1971
INSTANTANEOUS PEAK FLOW			57600	Jan 14	57600	Jan 14 1993
INSTANTANEOUS PEAK STAGE			32.14	Jan 14	32.14	Jan 14 1993
ANNUAL RUNOFF (AC-FT)	78770		245200		131100	
10 PERCENT EXCEEDS	170		796		302	
50 PERCENT EXCEEDS	5.4		21		5.8	
90 PERCENT EXCEEDS	.00		.00		.00	

11148900 NACIMIENTO RIVER BELOW SAPAQUE CREEK, NEAR BRYSON, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Weter yeara 1972 to current year. Published as stetion 11148800 "near Bryson" in water years 1958-59, 1961-71.
WATER TEMPERATURE: Water years 1972-73.
SEDIMENT DATA: Water years 1972 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1971 to September 1973.
SUSPENDED-SEDIMENT DISCHARGE: October 1971 to September 1973.

REMARKS.--Zero bedload discharge observed for flows less than 261 ft^3/s during current year.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV										
17...	1405	0.62	14.0	0	0.0	--	--	--	--	--
DEC										
29...	1455	774	8.5	63	132	88	92	98	100	--
JAN										
07...	1405	2490	12.0	132	887	76	83	90	97	100
MAR										
10...	1825	261	14.5	2	1.4	--	--	--	--	--
MAY										
17...	1510	31	22.0	2	0.17	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	NUMBER OF SAM-PLING POINTS (COUNT)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM
MAY							
17...	1400	1	31	22.0	2	8	34
17...	1401	1	31	22.0	--	1	4
17...	1402	1	31	22.0	--	1	2
17...	1403	1	31	22.0	--	1	3
17...	1404	1	31	22.0	--	--	3
17...	1405	1	31	22.0	--	--	2
17...	1406	1	31	22.0	--	1	6

DATE	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
MAY							
17...	78	98	100	--	--	--	--
17...	10	13	16	28	48	76	100
17...	3	3	3	7	20	58	100
17...	5	6	6	10	22	71	100
17...	11	24	30	39	55	86	100
17...	8	16	26	39	58	90	100
17...	28	58	78	93	99	100	--

11148900 NACIMIENTO RIVER BELOW SAPAQUE CREEK, NEAR BRYSON, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
DEC									
29...	1525	1000	1100	0.250	0	1515	1530	20	4.0
29...	1540	1000	1100	0.250	0	1535	1548	20	4.0
JAN									
07...	1430	1000	1100	0.250	0	1428	1435	15	10.0
07...	1445	1000	1100	0.250	0	1441	1446	15	10.0

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/ DAY)
DEC								
29...	2	20	20	8.00	759	8.5	0.22	22
29...	2	20	20	8.00	754	8.5	0.32	22
JAN								
07...	2	10	10	5.00	2380	12.0	3.96	512
07...	2	10	10	5.00	2310	12.0	6.27	512

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
DEC								
29...	1	5	41	78	94	98	100	--
29...	1	10	52	84	97	100	--	--
JAN								
07...	--	2	14	45	70	87	96	100
07...	--	2	17	57	81	92	98	100

11149400 NACIMIENTO RIVER BELOW NACIMIENTO DAM, NEAR BRADLEY, CA

LOCATION.--Lat 35°45'41", long 120°51'16", in NE 1/4 NE 1/4 sec.14, T.25 S., R.10 E., San Luis Obispo County, Hydrologic Unit 18060005, Camp Roberts Military Reservation, on left bank 2.2 mi downstream from Nacimiento Dam, and 7.6 mi southwest of Bradley.

DRAINAGE AREA.--329 mi^2.

PERIOD OF RECORD.--October 1957 to current year.
CHEMICAL DATA: Water years 1963-66.

REVISED RECORDS.--WDR CA-84-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 597 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,340 ft^3/s, Feb. 25, 1969, gage height, 10.92 ft; no flow at times in 1958-63, 1965, 1977, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,420 ft^3/s, Feb. 20, gage height, 9.38 ft; minimum daily, 5.7 ft^3/s, Nov. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	376	342	8.1	11	24	347	e27	28	399	532	572	549
2	368	323	8.8	9.7	24	90	30	28	440	531	572	546
3	369	253	11	9.0	24	31	30	28	439	526	572	544
4	369	324	7.7	8.3	24	30	31	28	407	525	570	538
5	370	324	8.8	8.5	24	30	30	30	360	525	570	534
6	371	324	11	10	23	29	31	28	357	535	573	531
7	372	324	12	12	24	30	30	29	358	563	579	524
8	374	324	8.5	8.6	497	30	30	29	358	559	576	517
9	374	324	10	7.7	1060	28	30	29	358	584	575	515
10	372	323	9.2	12	1120	29	30	109	372	599	574	585
11	369	322	11	6.9	1090	28	29	206	409	596	570	544
12	345	321	11	9.0	1060	28	29	200	408	592	568	560
13	211	318	11	16	1040	30	29	206	405	588	570	547
14	367	319	11	21	1020	26	29	206	406	587	571	534
15	369	319	10	19	1000	26	29	206	407	584	568	519
16	371	251	6.0	10	997	25	29	206	407	583	557	501
17	371	315	8.8	11	1020	25	28	249	408	592	550	485
18	372	314	9.2	8.2	957	25	28	299	422	589	588	471
19	374	313	7.9	13	923	25	28	299	443	588	584	444
20	374	276	9.1	25	2960	25	28	299	442	559	578	416
21	352	296	7.9	25	4110	23	27	308	444	585	575	397
22	369	307	8.5	24	3210	20	27	322	444	583	572	384
23	366	303	8.8	25	2250	20	28	323	445	580	550	370
24	365	301	8.2	25	3480	23	27	337	446	576	538	365
25	366	284	8.7	25	3940	31	28	369	446	576	533	359
26	366	270	8.6	25	4180	26	28	370	445	576	529	356
27	364	198	8.5	25	4160	22	27	371	444	575	525	355
28	362	75	11	24	2720	23	28	373	466	574	520	349
29	361	20	13	24	---	e23	28	374	509	574	515	348
30	359	5.7	10	24	---	e24	28	374	534	573	512	346
31	350	---	9.3	24	---	e25	---	375	---	573	521	---
TOTAL	11218	8312.7	292.6	505.9	42961	1197	861	6638	12628	17682	17327	14033
MEAN	362	277	9.44	16.3	1534	38.6	28.7	214	421	570	559	468
MAX	376	342	13	25	4180	347	31	375	534	599	588	585
MIN	211	5.7	6.0	6.9	23	20	27	28	357	525	512	346
AC-FT	22250	16490	580	1000	85210	2370	1710	13170	25050	35070	34370	27830

e Estimated.

11149400 NACIMIENTO RIVER BELOW NACIMIENTO DAM, NEAR BRADLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	231	107	113	228	460	280	167	225	300	381	410	358
MAX	501	618	1629	1868	2787	3016	1501	1067	581	662	802	571
(WY)	1983	1983	1983	1980	1983	1969	1958	1983	1969	1958	1967	1967
MIN	.000	.000	.000	.000	.000	.000	.000	.000	1.16	2.44	.000	.000
(WY)	1958	1958	1958	1962	1962	1961	1961	1961	1990	1990	1961	1961

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1958 - 1993	
ANNUAL TOTAL	62962.6		133656.2			
ANNUAL MEAN	172		366		271	
HIGHEST ANNUAL MEAN					1038	1983
LOWEST ANNUAL MEAN					3.43	1990
HIGHEST DAILY MEAN	456	Sep 23	4180	Feb 26	6770	Feb 26 1969
LOWEST DAILY MEAN	1.4	Aug 2	5.7	Nov 30	.00	Oct 1 1957
ANNUAL SEVEN-DAY MINIMUM	1.6	Aug 1	8.2	Dec 16	.00	Oct 1 1957
INSTANTANEOUS PEAK FLOW			4420	Feb 20	7340	Feb 25 1969
INSTANTANEOUS PEAK STAGE			9.38	Feb 20	10.92	Feb 25 1969
ANNUAL RUNOFF (AC-FT)	124900		265100		196000	
10 PERCENT EXCEEDS	378		581		516	
50 PERCENT EXCEEDS	65		337		123	
90 PERCENT EXCEEDS	3.0		11		.84	

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA

LOCATION.--Lat 35°53'48", long 121°05'14", in Los Ojitos Grant, Monterey County, Hydrologic Unit 18060005, on downstream side of highway bridge, 0.4 mi upstream from Tule Canyon, and 3.3 mi south of Lockwood.

DRAINAGE AREA.--217 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WDR CA-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 795.00 ft above sea level. Prior to Aug. 28, 1975, at datum 5.00 ft higher.

REMARKS.--No estimated daily discharges. Records fair except for daily discharges less than 5.0 ft^3/s, which are poor. No regulation; some pumping upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft^3/s, Jan. 26, 1969, gage height, 13.25 ft, current datum; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	0900	3,170	9.53	Feb. 19	1215	2,880	9.42
Jan. 14	0815	*13,100	*12.64				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	114	236	796	177	62	31	3.6	.00	.00
2	.00	.00	.00	473	216	723	165	60	30	3.6	.00	.00
3	.00	.00	.00	233	195	660	156	57	28	3.9	.00	.00
4	.00	.00	.00	136	177	601	151	56	28	3.6	.00	.00
5	.00	.00	.00	91	173	543	142	54	28	3.2	.00	.00
6	.00	.00	.00	79	191	494	135	51	30	3.4	.00	.00
7	.00	.00	.00	1510	166	451	125	51	30	3.3	.00	.00
8	.00	.00	.00	1010	833	400	122	49	28	3.2	.00	.00
9	.00	.00	.00	701	682	363	117	46	26	2.4	.00	.00
10	.00	.00	.00	693	535	333	115	44	24	1.7	.00	.00
11	.00	.00	.00	565	446	310	111	45	21	1.4	.00	.00
12	.00	.00	.00	491	390	288	110	47	19	1.3	.00	.00
13	.00	.00	5.6	2520	331	271	102	47	18	1.2	.00	.00
14	.00	.00	11	5820	288	250	99	46	16	1.1	.00	.00
15	.00	.00	10	2700	252	232	99	44	14	.68	.00	.00
16	.00	.00	8.7	2160	226	217	94	43	13	.36	.00	.00
17	.00	.00	7.0	1950	220	213	92	42	12	.89	.00	.00
18	.00	.00	5.7	2250	928	208	107	40	11	1.5	.00	.00
19	.00	.00	4.9	1300	2220	196	101	39	9.9	1.2	.00	.00
20	.00	.00	5.2	1010	1930	185	94	37	9.1	.96	.00	.00
21	.00	.00	5.1	1100	1390	175	89	36	8.5	.77	.00	.00
22	.00	.00	4.8	987	1180	169	85	35	7.8	.40	.00	.00
23	.00	.00	4.5	843	1750	165	82	35	7.3	.15	.00	.00
24	.00	.00	4.5	710	1290	170	80	34	6.4	.00	.00	.00
25	.00	.00	4.4	605	1090	204	77	36	5.9	.00	.00	.00
26	.00	.00	4.1	515	1410	310	76	38	5.3	.02	.00	.00
27	.00	.00	3.9	442	1070	242	75	36	4.6	.01	.00	.00
28	.00	.00	9.2	380	913	307	71	36	4.2	.00	.00	.00
29	.00	.00	294	332	---	242	68	34	3.9	.02	.00	.00
30	.00	.00	414	295	---	210	63	33	3.6	.02	.00	.00
31	.00	---	202	264	---	190	---	32	---	.00	.00	---
TOTAL	0.00	0.00	1008.60	32279	20728	10118	3180	1345	483.5	43.88	0.00	0.00
MEAN	.000	.000	32.5	1041	740	326	106	43.4	16.1	1.42	.000	.000
MAX	.00	.00	414	5820	2220	796	177	62	31	3.9	.00	.00
MIN	.00	.00	.00	79	166	165	63	32	3.6	.00	.00	.00
AC-FT	.00	.00	2000	64030	41110	20070	6310	2670	959	87	.00	.00

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.42	16.2	82.4	286	373	330	130	40.6	11.8	2.71	.24	.068
MAX	11.7	108	573	1515	1807	1856	637	167	51.9	22.9	6.83	1.91
(WY)	1984	1984	1967	1969	1986	1983	1982	1983	1978	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.058	.005	.000	.000	.000	.000	.000
(WY)	1966	1967	1977	1977	1977	1977	1977	1977	1972	1966	1966	1966

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1966 - 1993	
ANNUAL TOTAL	16870.73		69185.98			
ANNUAL MEAN	46.1		190		105	
HIGHEST ANNUAL MEAN					455	1983
LOWEST ANNUAL MEAN					.005	1977
HIGHEST DAILY MEAN	1530	Feb 12	5820	Jan 14	8440	Mar 2 1983
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1965
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 13	.00	Oct 1	.00	Oct 1 1965
INSTANTANEOUS PEAK FLOW			13100	Jan 14	14000	Jan 26 1969
INSTANTANEOUS PEAK STAGE			12.64	Jan 14	13.25	Jan 26 1969
ANNUAL RUNOFF (AC-FT)	33460		137200		75940	
10 PERCENT EXCEEDS	129		538		212	
50 PERCENT EXCEEDS	.00		6.4		3.3	
90 PERCENT EXCEEDS	.00		.00		.00	

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.
WATER TEMPERATURE: Water years 1966-73.
SEDIMENT DATA: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1965 to September 1973.
SUSPENDED-SEDIMENT DISCHARGE: October 1965 to September 1973.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
DEC											
29...	1225	451	10.0	168	205	34	35	42	82	98	100
JAN											
07...	1355	1790	11.0	682	3300	22	23	27	65	85	97
17...	1545	2400	12.5	380	2460	36	42	56	83	97	100
FEB											
03...	1235	192	11.0	26	13	23	36	49	86	100	--
10...	1345	524	13.0	74	105	19	21	37	81	97	100
MAR											
17...	1735	217	19.0	8	4.7	--	--	--	--	--	--
MAY											
18...	1300	39	23.0	3	0.32	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM
DEC							
29...	1338	1	453	10.0	--	--	1
29...	1340	1	453	10.0	--	--	1
29...	1342	1	453	10.0	--	--	--
29...	1344	1	453	10.0	--	--	1
29...	1346	1	453	10.0	--	--	1
29...	1348	1	453	10.0	--	--	1
29...	1350	1	453	10.0	--	--	1
29...	1352	1	453	10.0	--	--	1
29...	1354	1	453	10.0	--	--	1
29...	1356	1	453	10.0	--	1	5
FEB							
03...	1320	1	192	11.0	--	--	1
03...	1321	1	192	11.0	--	--	1
03...	1322	1	192	11.0	--	--	1
03...	1323	1	192	11.0	--	--	1
03...	1324	1	192	11.0	--	--	1
03...	1325	1	192	11.0	--	--	3
03...	1326	1	192	11.0	--	--	--
03...	1327	1	192	11.0	--	--	1
03...	1328	1	192	11.0	--	--	1
03...	1329	1	192	11.0	1	1	3

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
DEC							
29...	7	32	59	76	87	98	100
29...	12	49	78	90	95	100	--
29...	5	26	54	72	84	98	100
29...	12	48	76	89	94	96	100
29...	15	45	71	86	94	97	100
29...	22	58	78	88	93	98	100
29...	15	51	75	87	92	98	100
29...	10	40	69	85	93	100	--
29...	15	68	93	98	99	100	--
29...	19	73	97	100	--	--	--
FEB							
03...	10	39	65	80	88	98	100
03...	12	34	57	74	82	90	100
03...	11	42	69	83	90	98	100
03...	14	48	75	87	92	97	100
03...	14	39	66	82	90	98	100
03...	11	20	28	39	52	70	100
03...	7	33	82	97	100	--	--
03...	12	33	63	87	95	99	100
03...	15	26	49	71	83	93	100
03...	9	17	29	37	46	62	100

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
DEC									
29...	1250	1000	1120	0.250	0	1240	1300	20	6.0
29...	1315	1000	1120	0.250	0	1305	1325	20	6.0
JAN									
07...	1450	1000	1140	0.250	0	1435	1500	10	7.0
07...	1520	1000	1140	0.250	0	1510	1530	10	7.0
17...	1640	1000	1140	0.250	0	1620	1655	20	10.0
FEB									
03...	1300	1000	1150	0.250	0	1255	1305	10	4.0
03...	1310	1000	1150	0.250	0	1310	1315	10	4.0
10...	1405	1000	1150	0.250	0	1400	1408	15	10.0
10...	1415	1000	1150	0.250	0	1415	1420	15	10.0
MAR									
17...	1750	1000	1120	0.250	0	1744	1758	20	5.0
17...	1805	1000	1120	0.250	0	1800	1809	20	5.0
MAY									
18...	1305	1000	1120	0.250	0	1302	1312	30	3.0
18...	1320	1000	1120	0.250	0	1315	1325	30	3.0

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
DEC									
29...	2	25	25	3.00	453	10.0	2.80	409	1
29...	2	25	25	3.00	453	10.0	2.65	409	1
JAN									
07...	2	22	22	3.50	1600	11.0	10.5	1640	2
07...	2	22	22	3.50	1530	11.0	10.8	1640	2
17...	1	22	22	5.00	2520	12.5	10.9	2400	1
FEB									
03...	2	21	21	3.00	192	11.0	4.76	386	1
03...	2	21	21	3.00	192	11.0	4.43	386	1
10...	2	19	19	5.00	519	13.0	5.77	1200	1
10...	2	19	19	5.00	519	13.0	6.90	1200	1
MAR									
17...	2	23	23	--	217	19.0	1.30	166	1
17...	2	23	23	--	217	19.0	1.59	166	--
MAY									
18...	2	18	18	1.00	39	23.0	0.57	26	--
18...	2	18	18	1.00	39	23.0	0.39	26	--

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
DEC								
29...	20	50	72	84	89	96	100	--
29...	21	54	75	85	89	95	100	--
JAN								
07...	25	54	79	89	93	98	100	--
07...	20	45	69	81	87	92	96	100
17...	14	43	70	82	89	96	99	100
FEB								
03...	30	58	80	89	94	97	98	100
03...	14	52	78	90	95	99	100	--
10...	14	46	72	86	92	97	100	--
10...	27	52	75	86	92	96	99	100
MAR								
17...	15	56	84	95	98	100	--	--
17...	12	44	74	88	94	98	100	--
MAY								
18...	6	48	84	94	98	100	--	--
18...	8	49	82	93	96	97	100	--

11150500 SALINAS RIVER NEAR BRADLEY, CA

LOCATION.--Lat 35°55'49", long 120°52'04", in SW 1/4 NW 1/4 sec.14, T.23 S., R.10 E., Monterey County, Hydrologic Unit 18060005, on left bank 6 mi northwest of Bradley and 7 mi downstream from San Antonio River.

DRAINAGE AREA.--2,535 mi^2.

PERIOD OF RECORD.--October 1948 to September 1956, October 1957 to current year. Monthly discharge only for some periods, published in WSP 1315-B.
CHEMICAL DATA: Water years 1958, 1962-66, 1972-75, 1977, 1980, 1981.
SEDIMENT DATA: Water years 1950, 1990.

REVISED RECORDS.--WSP 1285: 1950. WDR CA-84-2: 1978.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 442.69 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Santa Margarita Lake beginning in December 1941, usable capacity, 23,000 acre-ft; Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft; and Lake San Antonio beginning in December 1965, usable capacity, 330,000 acre-ft. Several small diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117,000 ft^3/s, Feb. 24, 1969, gage height, 20.34 ft, from floodmarks; no flow at times in 1951, 1954-55, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23,200 ft^3/s, Jan. 14, gage height, 14.42 ft; minimum daily, 25 ft^3/s, Dec. 22-27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	433	404	58	37	243	2240	1060	121	363	507	530	545
2	421	394	48	44	211	1510	879	117	423	505	548	534
3	416	342	44	72	201	1210	669	113	424	530	574	515
4	410	361	39	70	192	1050	532	112	419	548	584	496
5	400	373	36	61	179	886	422	107	374	541	582	478
6	396	373	37	61	173	773	342	104	373	525	577	461
7	391	370	40	207	174	646	300	103	379	569	572	467
8	384	364	36	1070	1020	563	279	101	372	591	547	470
9	379	358	34	787	2860	485	275	100	363	596	560	485
10	370	355	32	708	2920	432	271	98	363	638	577	532
11	357	350	34	973	2410	395	266	172	395	634	584	535
12	352	344	31	681	2140	366	267	225	391	615	573	550
13	254	343	30	1230	1980	339	262	225	404	595	574	536
14	369	343	29	12800	1840	320	249	228	412	596	560	522
15	747	343	29	8010	1760	295	228	230	421	620	537	511
16	1020	296	28	7320	1710	279	209	226	426	644	533	500
17	1060	312	28	4180	1730	265	193	225	423	670	507	480
18	1060	331	29	6540	1990	260	184	286	409	662	511	469
19	1080	335	27	4040	3690	237	191	301	421	647	531	455
20	829	331	26	2300	5260	213	193	306	424	620	541	435
21	765	275	26	1650	6720	197	183	308	436	627	550	411
22	762	313	25	1350	5210	195	171	330	444	625	556	396
23	762	320	25	1170	11300	198	159	334	450	605	573	380
24	762	311	25	922	10300	217	156	326	444	589	561	358
25	744	305	25	764	7580	336	153	350	435	607	551	347
26	669	280	25	623	7110	1960	148	368	419	616	562	352
27	568	265	25	443	6700	2100	142	382	416	614	560	362
28	471	173	28	358	5500	2130	141	380	429	605	549	377
29	445	109	35	315	---	2050	136	374	469	582	546	382
30	452	74	37	288	---	1510	129	370	507	550	536	382
31	416	---	35	264	---	1250	---	370	---	533	528	---
TOTAL	17944	9447	1006	59338	93103	24907	8789	7392	12428	18406	17174	13723
MEAN	579	315	32.5	1914	3325	803	293	238	414	594	554	457
MAX	1080	404	58	12800	11300	2240	1060	382	507	670	584	550
MIN	254	74	25	37	173	195	129	98	363	505	507	347
AC-FT	35590	18740	2000	117700	184700	49400	17430	14660	24650	36510	34060	27220

11150500 SALINAS RIVER NEAR BRADLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1956, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.23	100	752	1457	685	878	310	139	21.1	3.41	2.03	1.74
MAX	4.04	742	2319	5372	1449	2724	580	249	55.3	6.26	4.16	4.46
(WY)	1951	1951	1956	1952	1950	1952	1952	1955	1956	1953	1952	1952
MIN	1.64	4.40	11.0	140	238	293	87.4	40.7	7.87	1.64	.000	.000
(WY)	1955	1956	1954	1949	1953	1950	1951	1949	1950	1951	1955	1955

SUMMARY STATISTICS	WATER YEARS 1949 - 1956	
ANNUAL MEAN	363	
HIGHEST ANNUAL MEAN	945	1952
LOWEST ANNUAL MEAN	152	1955
HIGHEST DAILY MEAN	22000	Dec 24 1955
LOWEST DAILY MEAN	.00	Aug 15 1951
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 15 1951
INSTANTANEOUS PEAK FLOW	26800	Jan 15 1952
INSTANTANEOUS PEAK STAGE	12.35	Jan 15 1952
ANNUAL RUNOFF (AC-FT)	263100	
10 PERCENT EXCEEDS	745	
50 PERCENT EXCEEDS	16	
90 PERCENT EXCEEDS	1.6	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	273	149	209	606	1347	912	510	330	382	462	508	427
MAX	632	559	2152	4641	8425	6415	5642	1792	641	661	770	743
(WY)	1970	1983	1983	1969	1969	1983	1958	1983	1983	1983	1991	1969
MIN	3.00	5.00	7.58	9.26	10.6	16.3	12.1	4.50	2.98	.84	.37	1.47
(WY)	1962	1962	1991	1991	1991	1990	1990	1961	1990	1990	1990	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1958 - 1993	
ANNUAL TOTAL	115540.7		283657			
ANNUAL MEAN	316		777		505	
HIGHEST ANNUAL MEAN					1997	1983
LOWEST ANNUAL MEAN					9.39	1990
HIGHEST DAILY MEAN	6150	Feb 13	12800	Jan 14	60400	Feb 25 1969
LOWEST DAILY MEAN	8.1	Aug 19	25	Dec 22	.07	Sep 9 1990
ANNUAL SEVEN-DAY MINIMUM	8.6	Aug 13	25	Dec 21	.09	Sep 4 1990
INSTANTANEOUS PEAK FLOW			23200	Jan 14	117000	Feb 24 1969
INSTANTANEOUS PEAK STAGE			14.42	Jan 14	20.34	Feb 24 1969
ANNUAL RUNOFF (AC-FT)	229200		562600		365800	
10 PERCENT EXCEEDS	504		1290		644	
50 PERCENT EXCEEDS	291		412		302	
90 PERCENT EXCEEDS	18		71		19	

11151700 SALINAS RIVER AT SOLEDAD, CA

LOCATION.--Lat 36°24'40", long 121°19'06", on boundary between San Vicente and Los Coches Grants, Monterey County, Hydrologic Unit 18060005, near right bank on upstream end of pier on U.S. Highway 101, 0.9 mi south of Soledad, and 1 mi upstream from Arroyo Seco.

DRAINAGE AREA.--3,563 mi^2.

PERIOD OF RECORD.--October 1968 to September 1978, October 1983 to current year.
CHEMICAL DATA: Water years 1972-75, 1977.
SEDIMENT DATA: Water years 1990, 1992.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 170 ft above sea level, from topographic map.

REMARKS.--Records poor. Flow regulated by Santa Margarita Lake beginning in December 1941, usable capacity, 23,000 acre-ft; Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft; and by Lake San Antonio beginning in December 1965, usable capacity, 330,000 acre-ft. Several small diversions for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 106,000 ft^3/s, Feb. 25, 1969, gage height, 23.31 ft; maximum gage height, 23.39 ft, Jan. 26, 1969; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,600 ft^3/s, Feb. 24, gage height, 16.71 ft; maximum gage height, 16.87 ft, from highwater mark, Jan. 15; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	82	37	e.00	551	4200	1220	115	177	189	258	206
2	e.00	79	e9.7	e.00	516	2180	920	105	174	199	256	210
3	e.00	73	e4.0	e3.2	488	2150	793	100	173	203	254	217
4	e.00	67	e.00	e.00	464	1990	715	92	190	213	250	218
5	e.00	59	e.00	e.00	445	1600	644	84	204	227	248	229
6	e.00	64	e.00	e.00	427	1280	582	77	204	234	244	243
7	e.00	64	e.00	e116	427	1020	519	68	195	236	246	247
8	e.00	68	e.00	91	588	853	472	61	189	238	247	237
9	e.00	73	e.00	244	1770	777	437	55	185	240	250	237
10	e.00	69	e.00	302	3280	704	403	51	178	243	253	236
11	e.00	69	e.00	405	3590	641	378	49	168	251	244	238
12	e.00	72	e.00	470	3140	591	354	49	163	273	245	250
13	e.00	72	e.00	681	2710	558	330	48	171	284	243	259
14	e.00	73	e.00	e5230	2480	523	308	56	179	287	239	260
15	e.00	73	e.00	e11200	2310	494	288	64	177	291	241	258
16	e.00	78	e.00	e10100	2160	468	271	72	173	294	248	257
17	e45	77	e.00	e6010	2020	449	256	77	164	292	250	251
18	168	64	e.00	e5430	2060	429	244	83	162	294	242	252
19	233	71	e.00	5610	4040	407	234	84	157	297	227	252
20	279	72	e.00	3480	6200	391	224	92	160	294	229	254
21	284	75	e.00	2340	8420	373	212	102	176	293	230	244
22	226	75	e.00	1790	9090	360	197	108	177	271	241	234
23	221	77	e.00	1510	8640	345	188	114	176	274	245	221
24	246	83	e.00	1320	14400	344	177	124	175	274	244	216
25	263	81	e.00	1160	9120	369	165	132	173	274	227	206
26	281	77	e.00	1030	7430	825	157	137	165	281	215	201
27	234	78	e.00	915	7060	2030	150	144	166	291	209	202
28	177	78	e.00	819	5710	2440	142	153	176	297	197	192
29	134	73	e.00	723	---	2640	133	156	181	288	194	185
30	108	54	e.00	656	---	2400	123	162	181	276	207	178
31	95	---	e.00	596	---	1770	---	172	---	271	213	---
TOTAL	2994.00	2170	50.70	62231.20	109536	35601	11236	2986	5289	8169	7336	6890
MEAN	96.6	72.3	1.64	2007	3912	1148	375	96.3	176	264	237	230
MAX	284	83	37	11200	14400	4200	1220	172	204	297	258	260
MIN	.00	54	.00	.00	427	344	123	48	157	189	194	178
AC-FT	5940	4300	101	123400	217300	70610	22290	5920	10490	16200	14550	13670

e Estimated.

11151700 SALINAS RIVER AT SOLEDAD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	170	106	137	747	1390	924	277	135	131	137	156	186
MAX	488	336	876	5099	9295	5428	1834	661	456	390	327	478
(WY)	1970	1970	1984	1969	1969	1969	1969	1969	1969	1969	1969	1969
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1969 - 1993	
ANNUAL TOTAL	35979.38		254488.90			
ANNUAL MEAN	98.3		697		369	
HIGHEST ANNUAL MEAN					1981	1969
LOWEST ANNUAL MEAN					.000	1990
HIGHEST DAILY MEAN	4210	Feb 16	14400	Feb 24	68300	Feb 25 1969
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Mar 9 1977
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Mar 9 1977
INSTANTANEOUS PEAK FLOW			17600	Feb 24	106000	Feb 25 1969
INSTANTANEOUS PEAK STAGE			16.87	Jan 15	23.39	Jan 26 1969
ANNUAL RUNOFF (AC-FT)	71370		504800		267600	
10 PERCENT EXCEEDS	198		1780		452	
50 PERCENT EXCEEDS	.00		218		120	
90 PERCENT EXCEEDS	.00		.00		.00	

11152000 ARROYO SECO NEAR SOLEDAD, CA

LOCATION.--Lat 36°16'50", long 121°19'18", in SW 1/4 NE 1/4 sec.16, T.19 S., R.6 E., Monterey County, Hydrologic Unit 18060005, on right bank under county road bridge, 1.5 mi downstream from Vaquero Creek, and 10 mi south of Soledad.

DRAINAGE AREA.--244 mi^2.

PERIOD OF RECORD.--November 1901 to current year. Records for water year 1902 incomplete; yearly estimate published in WSP 1315-B.

REVISED RECORDS.--WSP 881: 1902-9 (yearly summary only). WSP 1565: 1916-19, 1920-21(M), 1922, 1926-27, 1928-30(M), 1932, 1934, 1936(M). WSP 1715: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 339.20 ft above sea level. Prior to June 16, 1929, nonrecording gage, and June 16, 1929, to Dec. 2, 1941, water-stage recorder at site 1 mi upstream at different datum. Dec. 3, 1941, to Sept. 30, 1959, water-stage recorder at datum 2.00 ft higher. Jan. 30 to Mar. 26, 1969, nonrecording gage at bridge at same datum.

REMARKS.--Records good except for estimated daily discharges and for discharges from Jul. 5 to Aug. 1, which are poor. No regulation or large diversion upstream from station. Low flows affected by upstream gravel mining during summer months.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,300 ft^3/s, Apr. 3, 1958, gage height, 16.40 ft, datum then in use, from rating curve extended above 12,000 ft^3/s on basis of slope-area measurement at gage height 16.30 ft; no flow at times during several years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	0145	5,630	*7.33	Feb. 19	0815	3,850	6.50
Jan. 14	0530	*18,800	*13.40				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	9.7	7.5	449	363	1040	253	104	61	24	8.9	e2.9
2	.00	5.9	8.4	635	332	931	236	101	60	23	e8.0	e2.9
3	.00	4.2	9.0	291	324	836	225	98	59	23	e8.0	e2.8
4	.00	3.1	15	192	309	756	217	100	59	23	e7.2	e2.8
5	.00	3.1	19	147	336	689	209	98	73	22	e7.0	e2.7
6	.00	2.7	16	188	321	632	202	95	72	22	e6.3	e2.7
7	.00	2.9	270	e3470	e313	585	197	94	67	21	e6.2	e2.6
8	.00	3.5	120	e1860	e1220	545	189	91	62	20	e6.1	e2.6
9	.00	3.9	183	e1000	e908	508	183	91	58	19	e6.0	e2.5
10	.00	4.0	199	e992	e805	474	177	85	53	24	e5.8	e2.5
11	.00	4.0	451	e632	700	446	173	83	50	23	e5.6	e2.4
12	.00	4.2	228	e916	606	421	167	89	49	21	e5.6	e2.4
13	.00	4.4	132	e4590	538	396	162	88	46	20	e5.3	e2.3
14	.00	4.8	94	e7740	490	379	159	84	43	18	e5.0	e2.3
15	.00	5.0	74	e3280	450	360	153	81	43	19	e4.7	e2.4
16	.00	5.4	62	e2830	419	341	152	79	41	18	e4.7	e2.4
17	.00	5.5	54	e3100	536	335	153	77	39	17	e4.4	e2.5
18	.00	5.5	54	e3100	1490	321	222	76	38	16	e4.4	e2.5
19	.00	5.7	49	e2060	2940	303	164	72	37	14	e4.2	e2.7
20	.00	6.3	44	e1900	2730	290	150	74	36	13	e4.2	e2.7
21	.00	6.6	41	e2310	1880	275	141	72	35	12	e4.1	e2.9
22	.00	6.6	37	e2180	1480	264	139	70	33	11	e4.0	e2.9
23	.00	6.7	35	1610	2000	255	135	67	32	12	e3.8	e3.1
24	.00	7.3	34	1270	1660	278	133	67	30	12	e3.8	e3.1
25	.00	8.2	32	1030	1410	288	126	74	29	11	e3.7	e3.3
26	.00	7.7	31	865	1840	345	121	74	27	10	e3.6	e3.3
27	.00	7.4	28	739	1420	304	117	86	26	10	e3.4	e3.5
28	.00	7.0	35	639	1200	367	115	76	23	11	e3.3	e3.6
29	.00	7.0	1020	550	---	301	112	67	25	11	e3.2	e3.8
30	.00	7.0	468	475	---	276	107	64	24	11	e3.0	e3.8
31	1.5	---	222	412	---	261	---	66	---	10	e3.0	---
TOTAL	1.50	165.3	4071.9	51452	29020	13802	4989	2543	1330	521	156.5	84.9
MEAN	.048	5.51	131	1660	1036	445	166	82.0	44.3	16.8	5.05	2.83
MAX	1.5	9.7	1020	7740	2940	1040	253	104	73	24	8.9	3.8
MIN	.00	2.7	7.5	147	309	255	107	64	23	10	3.0	2.3
AC-FT	3.0	328	8080	102100	57560	27380	9900	5040	2640	1030	310	168

e Estimated.

11152000 ARROYO SECO NEAR SOLEDAD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1902 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.30	55.0	168	380	568	444	255	91.9	38.3	14.2	5.69	4.70
MAX	75.5	650	1161	2425	2611	2344	2043	644	185	90.8	54.5	38.8
(WY)	1905	1927	1956	1914	1938	1983	1958	1983	1983	1983	1983	1978
MIN	.000	.000	2.87	5.95	8.98	18.5	7.82	4.14	.66	.000	.000	.000
(WY)	1914	1991	1991	1991	1991	1977	1977	1977	1924	1924	1913	1913

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1902 - 1993	
ANNUAL TOTAL	39525.50		108137.10			
ANNUAL MEAN	108		296		167	
HIGHEST ANNUAL MEAN					709	1983
LOWEST ANNUAL MEAN					6.97	1977
HIGHEST DAILY MEAN	3430	Feb 12	7740	Jan 14	16500	Dec 23 1955
LOWEST DAILY MEAN	.00	Aug 19	.00	Oct 1	.00	Aug 27 1904
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 19	.00	Oct 1	.00	Aug 27 1904
INSTANTANEOUS PEAK FLOW			18800	Jan 14	28300	Apr 3 1958
INSTANTANEOUS PEAK STAGE			13.40	Jan 14	16.40	Apr 3 1958
ANNUAL RUNOFF (AC-FT)	78400		214500		121200	
10 PERCENT EXCEEDS	229		817		353	
50 PERCENT EXCEEDS	13		43		28	
90 PERCENT EXCEEDS	.00		2.4		.00	

11152300 SALINAS RIVER NEAR CHUALAR, CA
(National Stream Quality Accounting Network Station)

LOCATION.--Lat 36°33'20", long 121°32'55", in Guadalupe y Llanitos de Los Correos Grant, Monterey County, Hydrologic Unit 18060005, near left bank on upstream side of bridge on Chualar-River Road and 2 mi southwest of Chualar.

DRAINAGE AREA.--4,042 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

REVISED RECORDS.--WDR CA-85-2: 1983-84(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 68.00 ft above sea level. Prior to January 1979, nonrecording gage at same site and datum. Prior to Aug. 19, 1991, at site 0.2 mi upstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Daily discharges prior to January 1979 determined by discharge measurements at this site correlated to streamflow for Salinas River at Soledad (station 11151700) and Salinas River near Spreckels (station 11152500). Flow regulated by Santa Margarita Lake beginning in December 1941, usable capacity, 23,000 acre-ft; Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft; and Lake San Antonio beginning in December 1965, usable capacity, 330,000 acre-ft. Large withdrawals from ground water and small surface-water diversions for municipal use and for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,000 ft^3/s, Mar. 3, 1983, gage height, 14.92 ft, from rating curve extended above 21,000 ft^3/s; no flow at times during most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,800 ft^3/s, Feb. 24, gage height, 13.12 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	651	4590	1170	15	.00	.00	49	26
2	.00	.00	.00	.00	581	2980	994	3.6	.00	.00	49	19
3	.00	.00	.00	.00	522	2570	845	.16	.00	.00	50	21
4	.00	.00	.00	.00	474	2130	744	.00	.00	9.0	40	24
5	.00	.00	.00	.00	427	1840	657	.00	.00	29	33	28
6	.00	.00	.00	.00	392	1650	576	.00	e2.5	39	30	35
7	.00	.00	.00	470	370	1480	501	.00	e20	41	35	44
8	.00	.00	.00	662	700	1310	435	.00	e31	38	34	44
9	.00	.00	.00	591	1330	1170	386	.00	e28	35	40	40
10	.00	.00	.00	460	2180	1030	345	.00	e25	33	40	35
11	.00	.00	.00	426	2460	904	317	.00	e20	31	36	32
12	.00	.00	.00	386	2350	804	296	.00	e15	38	31	39
13	.00	.00	.00	1540	2180	729	273	.00	e10	56	31	52
14	.00	.00	.00	5410	2010	663	248	.00	e8.0	60	30	61
15	.00	.00	.00	9920	1880	603	216	.00	11	61	26	59
16	.00	.00	.00	12000	1760	547	193	.00	9.2	60	27	58
17	.00	.00	.00	9600	1640	504	177	.00	2.6	57	e30	57
18	.00	.00	.00	8820	1970	467	162	.00	.00	53	e28	57
19	.00	.00	.00	8460	3880	421	172	.00	.00	60	e23	59
20	.00	.00	.00	5130	4880	383	145	.00	.00	69	e18	63
21	.00	.00	.00	4020	5270	343	126	.00	.00	71	e23	63
22	.00	.00	.00	3210	5840	316	112	.00	.00	63	e28	52
23	.00	.00	.00	2470	5690	291	100	.00	.00	53	e40	43
24	.00	.00	.00	1930	10700	277	87	.00	.00	56	e48	31
25	.00	.00	.00	1570	9900	294	72	.00	.00	55	e46	22
26	.00	.00	.00	1320	7840	521	60	.00	.00	62	30	15
27	.00	.00	.00	1160	6820	1020	51	.00	.00	73	20	14
28	.00	.00	.00	1040	5850	1500	42	.00	.00	78	15	10
29	.00	.00	.00	919	---	1580	32	.00	.00	71	11	1.6
30	.00	.00	.00	821	---	1710	23	.00	.00	64	21	.00
31	.00	---	.00	727	---	1420	---	.00	---	57	28	---
TOTAL	0.00	0.00	0.00	83062.00	90547	36047	9557	18.76	182.30	1472.00	990	1104.60
MEAN	.000	.000	.000	2679	3234	1163	319	.61	6.08	47.5	31.9	36.8
MAX	.00	.00	.00	12000	10700	4590	1170	15	31	78	50	63
MIN	.00	.00	.00	.00	370	277	23	.00	.00	.00	11	.00
AC-FT	.00	.00	.00	164800	179600	71500	18960	37	362	2920	1960	2190

e Estimated.

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	58.6	72.1	319	933	1698	1499	455	199	66.2	53.9	60.4	79.7
MAX	286	474	2757	5000	7804	10690	2793	2418	767	462	381	425
(WY)	1983	1983	1983	1983	1983	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1990	1981	1990	1990	1989	1977	1989	1990	1990	1990	1990	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1977 - 1993	
ANNUAL TOTAL	17219.29		222980.66			
ANNUAL MEAN	47.0		611		452	
HIGHEST ANNUAL MEAN					2796	1983
LOWEST ANNUAL MEAN					.000	1990
HIGHEST DAILY MEAN	3540	Feb 17	12000	Jan 16	43500	Mar 3 1983
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jan 27 1977
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Feb 3 1977
INSTANTANEOUS PEAK FLOW			15800	Feb 24	53000	Mar 3 1983
INSTANTANEOUS PEAK STAGE			13.12	Feb 24	14.92	Mar 3 1983
ANNUAL RUNOFF (AC-FT)	34150		442300		327200	
10 PERCENT EXCEEDS	15		1640		700	
50 PERCENT EXCEEDS	.00		28		36	
90 PERCENT EXCEEDS	.00		.00		.00	

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.
CHEMICAL DATA: Water years 1977 to current year.
BIOLOGICAL DATA: Water years 1977-81.
SPECIFIC CONDUCTANCE: Water years 1977-81.
WATER TEMPERATURE: Water years 1977-81.
SEDIMENT DATA: Water years 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1977 to September 1981.
WATER TEMPERATURE: January 1977 to September 1981.

INSTRUMENTATION.--Water-quality monitor from January 1977 to September 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)
JAN												
12...	1415	347	460	8.1	7.0	1600	752	12.2	102	2400	7900	150
MAR												
09...	1315	1170	625	8.3	17.0	51	764	9.6	99	K16	K65	230
JUN												
14...	1320	8.3	482	8.8	28.0	23	760	12.4	159	--	K33	180
JUL												
12...	1415	41	356	8.5	25.0	37	760	9.4	114	K70	140	150
AUG												
09...	1215	43	350	8.5	23.5	47	762	9.5	112	58	70	150
SEP												
08...	1245	46	348	8.4	24.5	33	760	9.8	118	70	78	150

DATE	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3	CARBONATE WATER DIS IT FIELD MG/L AS CO3	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
JAN												
12...	55	36	15	31	30	1	2.0	118	0	97	99	23
MAR												
09...	73	55	22	40	27	1	2.9	189	0	155	120	34
JUN												
14...	57	42	19	28	25	0.9	2.2	120	17	126	90	23
JUL												
12...	29	35	14	16	19	0.6	1.5	136	3	117	53	11
AUG												
09...	30	35	14	16	19	0.6	1.6	129	6	116	50	10
SEP												
08...	33	35	15	16	19	0.6	1.6	136	3	117	50	11

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
JAN												
12...	0.20	16	292	283	0.40	0.030	0.510	0.110	4.6	6.50	0.070	0.050
MAR												
09...	0.20	23	392	394	0.53	0.020	0.790	<0.010	0.30	0.230	0.100	0.110
JUN												
14...	0.20	15	300	296	0.41	<0.010	0.150	<0.010	0.20	0.060	0.020	<0.010
JUL												
12...	0.20	16	223	217	0.30	<0.010	<0.050	0.020	0.30	0.220	0.020	0.010
AUG												
09...	0.20	15	224	212	0.30	<0.010	0.100	0.020	0.20	0.060	<0.010	0.020
SEP												
08...	0.20	15	213	215	0.29	<0.010	0.130	0.020	0.40	0.110	0.050	0.020

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
JAN												
12...	60	31	<3	64	14	1	<10	4	1	<1.0	240	<6
MAR												
09...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
14...	<10	33	<3	10	11	2	<10	2	2	<1.0	300	<6
JUL												
12...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
09...	<10	27	<3	15	7	1	<10	2	1	<1.0	220	<6
SEP												
08...	30	28	<3	4	8	1	<10	1	<1	<1.0	230	<6

CROSS-SECTIONAL ANALYSES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JAN											
12...*	1348	1.40	82.0	460	8.1	7.0	752	12.2	102	5340	100
12...*	1350	1.70	120	460	8.1	7.0	752	12.2	102	5480	100
12...*	1354	2.10	140	460	8.1	7.0	752	12.2	102	5480	100
12...*	1356	2.40	158	461	8.1	7.0	752	12.2	102	5430	100
12...*	1358	1.55	186	461	8.1	7.0	752	12.1	101	5440	100
MAR											
09...*	1251	2.70	18.0	628	8.3	17.0	764	9.8	101	341	52
09...*	1257	0.80	84.0	625	8.3	17.0	764	9.8	101	212	87
09...*	1311	2.40	129	625	8.3	17.0	764	9.6	99	409	39
09...*	1320	2.40	167	625	8.3	17.0	764	9.6	99	607	26
09...*	1329	2.40	228	626	8.3	17.0	764	9.6	99	438	42

* Instantaneous streamflow at the time of cross-sectional measurements: Jan. 12, 347 ft^3/s; Mar. 09, 1,170 ft^3/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JAN						
12...	1355	347	7.0	5440	5100	100
MAR						
09...	1310	1170	17.0	402	1270	49
JUN						
14...	1315	8.0	28.0	35	0.76	100
JUL						
12...	1400	41	25.0	103	11	100
AUG						
09...	1345	45	25.0	111	13	100
SEP						
08...	1305	46	24.5	74	9.2	99

11152500 SALINAS RIVER NEAR SPRECKELS, CA

LOCATION.--Lat 36°37'52", long 121°40'17", in Nacional Grant, Montarey County, Hydrologic Unit 18060005, on right bank on downstream aide of bridge on Salinas-Monterey Highway, 0.8 mi upstream from El Toro Creek, 1.6 mi northwest of Spreckels, and 2 mi south of Salinas.

DRAINAGE AREA.--4,156 mi^2.

PERIOD OF RECORD.--Januery 1900 to August 1901, October 1929 to current year. Records for water year 1930 incomplete; yeerly estimate published in WSP 1315-B. Published as "near Salinas" 1900-01.
CHEMICAL DATA: Water yeers 1952-54, 1958-70, 1972-79. Published incorrectly as station 11152300 "near Chualar" in 1967.
BIOLOGICAL DATA: Water years 1975-77.
SPECIFIC CONDUCTANCE: Water years 1975 to January 1977, daily.
WATER TEMPERATURE: Water years 1967-79, daily. Published incorrectly as station 11152300 "near Chualar" in 1967-69.
SEDIMENT DATA: Water years 1950-51; 1967-79, daily; 1986, monthly; August 1990. Published incorrectly as station 11152300 "near Chualar" in 1967-69.
TURBIDITY: Water year 1973.

REVISED RECORDS.--WSP 1565: 1930, 1935, 1945. WSP 1715: 1959. WSP 1929: Drainage area. WDR CA-85-2: 1983.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 20.56 ft above sea level. 1900-01, May 10 to July 29, 1940, nonrecording gages at site 0.3 mi downstream at different datum. July 29, 1940, to May 22, 1969, water-stage recorder at site 0.3 mi downstream at datum 0.69 ft lower. May 23, 1969, to Jan. 13, 1970, nonrecording gage at same site and datum. Mar. 17, 1941, to June 30, 1961, supplementary nonrecording gages.

REMARKS.--No estimated daily discherges. Records fair. Flow regulated by Santa Margarite Lake (formerly Salinas Reservoir) beginning in 1941, usable capacity, 23,000 acre-ft; Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft; and by Lake San Antonio beginning in December 1965, uaable capacity, 330,000 acre-ft. Large withdrawals from ground water and small surface-water diversions for municipal use and for irrigation of about 95,000 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 83,100 ft^3/s, Feb. 26, 1969, gage height, 26.51 ft, site and datum then in use; maximum gage height, 26.85 ft, Jan. 16, 1952, site and datum then in use, from floodmarks; no flow at times in 1929-40, many days in 1990-92.

EXTREMES FOR CURRENT YEAR.--Maximum discherge, 12,300 ft^3/s, Feb. 25, gage height, 20.21 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	544	6250	1250	.57	.00	.00	.00	.00
2	.00	.00	.00	.00	494	3540	1080	.52	.00	.00	.00	.00
3	.00	.00	.00	.00	454	2570	949	.44	.00	.00	.00	.00
4	.00	.00	.00	.00	415	2070	836	.41	.00	.00	.00	.00
5	.00	.00	.00	.00	375	1750	746	.32	.00	.00	.00	.00
6	.00	.00	.00	.00	357	1520	656	.31	.00	.00	.00	.00
7	.00	.00	.00	.00	346	1340	574	.25	.00	.00	.00	.00
8	.00	.00	.00	.00	452	1180	496	.23	.00	.00	.00	.00
9	.00	.00	.00	117	1150	1050	433	.13	.00	.00	.00	.00
10	.00	.00	.00	387	1800	941	383	.07	.00	.00	.00	.00
11	.00	.00	.00	356	2280	839	341	.05	.00	.00	.00	.00
12	.00	.00	.00	306	2110	757	313	.02	.00	.00	.00	.00
13	.00	.00	.00	566	1850	689	284	.00	.00	.00	.00	.00
14	.00	.00	.00	3010	1680	633	254	.02	.00	.00	.00	.00
15	.00	.00	.00	6430	1550	580	221	.05	.00	.00	.00	.00
16	.00	.00	.00	7330	1430	534	191	.05	.00	.00	.00	.00
17	.00	.00	.00	6700	1320	498	173	.05	.00	.00	.00	.00
18	.00	.00	.00	6080	1470	463	155	.05	.00	.00	.00	.00
19	.00	.00	.00	5910	2950	428	156	.05	.00	.00	.00	.00
20	.00	.00	.00	4800	5190	391	142	.05	.00	.00	.00	.00
21	.00	.00	.00	3620	5730	356	114	.03	.00	.00	.00	.00
22	.00	.00	.00	3050	6730	326	94	.00	.00	.00	.00	.00
23	.00	.00	.00	2550	6590	301	77	.00	.00	.00	.00	.00
24	.00	.00	.00	1930	8560	286	63	.00	.00	.00	.00	.00
25	.00	.00	.00	1520	10600	289	43	.09	.00	.00	.00	.00
26	.00	.00	.00	1220	8520	861	24	.00	.00	.00	.00	.00
27	.00	.00	.00	1020	8020	1240	10	.00	.00	.00	.00	.00
28	.00	.00	.00	883	7310	1640	3.3	.00	.00	.00	.00	.00
29	.00	.00	.00	771	---	1610	1.5	.00	.00	.00	.00	.00
30	.00	.00	.00	680	---	1700	.77	.00	.00	.00	.00	.00
31	.00	---	.00	605	---	1460	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	59841.00	90277	38092	10063.57	3.76	0.00	0.00	0.00	0.00
MEAN	.000	.000	.000	1930	3224	1229	335	.12	.000	.000	.000	.000
MAX	.00	.00	.00	7330	10600	6250	1250	.57	.00	.00	.00	.00
MIN	.00	.00	.00	.00	346	286	.77	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	118700	179100	75560	19960	7.5	.00	.00	.00	.00

11152500 SALINAS RIVER NEAR SPRECKELS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1940, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.24	5.04	378	491	3003	1656	520	75.7	7.80	1.53	.81	1.82
MAX	12.0	12.0	3215	1742	11940	9543	2019	340	49.3	9.00	5.00	6.10
(WY)	1939	1939	1932	1940	1938	1938	1935	1938	1938	1938	1938	1932
MIN	.000	.000	.000	6.33	9.23	3.86	.70	.10	.10	.000	.000	.000
(WY)	1940	1940	1940	1931	1931	1931	1931	1931	1931	1931	1931	1931

SUMMARY STATISTICS	WATER YEARS 1930 - 1940	
ANNUAL TOTAL		
ANNUAL MEAN	497	
HIGHEST ANNUAL MEAN	1931	1938
LOWEST ANNUAL MEAN	2.66	1931
HIGHEST DAILY MEAN	69900	Feb 12 1938
LOWEST DAILY MEAN	.00	Jul 1 1931
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 1 1931
INSTANTANEOUS PEAK FLOW	75000	Feb 12 1938
INSTANTANEOUS PEAK STAGE	25.00	Feb 12 1938
ANNUAL RUNOFF (AC-FT)	360400	
10 PERCENT EXCEEDS	727	
50 PERCENT EXCEEDS	4.7	
90 PERCENT EXCEEDS	.00	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	27.6	34.5	224	857	1314	1168	502	120	34.2	20.0	21.6	32.9
MAX	402	389	2511	5959	9862	12640	6714	2839	767	403	354	394
(WY)	1970	1983	1983	1969	1969	1983	1958	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1991	1991	1991	1991	1990	1990	1990	1990	1990	1990	1990	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1942 - 1993	
ANNUAL TOTAL	12872.11		198277.33			
ANNUAL MEAN	35.2		543		358	
HIGHEST ANNUAL MEAN					2997	1983
LOWEST ANNUAL MEAN					.81	1990
HIGHEST DAILY MEAN	3330	Feb 17	10600	Feb 25	64800	Feb 26 1969
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jan 31 1990
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Jan 31 1990
INSTANTANEOUS PEAK FLOW			12300	Feb 25	83100	Feb 26 1969
INSTANTANEOUS PEAK STAGE			20.21	Feb 25	26.51	Feb 26 1969
ANNUAL RUNOFF (AC-FT)	25530		393300		259500	
10 PERCENT EXCEEDS	1.4		1520		542	
50 PERCENT EXCEEDS	.00		.00		3.3	
90 PERCENT EXCEEDS	.00		.00		.80	

11152540 EL TORO CREEK NEAR SPRECKELS, CA

LOCATION.--Let 36°35'00", long 121°42'50", in El Toro Grant, Monterey County, Hydrologic Unit 18060005, on right bank 0.3 mi downstream from San Benancio Gulch and 4.7 mi southwest of Spreckels.

DRAINAGE AREA.--31.9 mi^2.

PERIOD OF RECORD.--October 1961 to current yeer.
SEDIMENT DATA: Water years 1986, 1990.

GAGE.--Water-stage recorder, concrete weir control since Oct. 1, 1992, and crest-stage gage. Elevation of gage is 210 ft above sea level, from topographic map. Prior to Sept. 16, 1983, gage was at site 700 ft upstream at different detum.

REMARKS.--Records good. No regulation or diversion upstream from stetion except for small stock ponds. Low flow at times affected by irrigation runoff from upstream golf course.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft^3/s, Mar. 2, 1983, gage height, 6.10 ft, site and datum then in use, from rating curve extended above 93 ft^3/s on basis of slope-area meesurement at gage height 6.07 ft; no flow for many deys in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft^3/s and maximum (*), from rating curve extended above 240 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 10	0145	49	2.16	Feb. 8	1330	53	2.19
Jan. 14	0500	*463	*5.71	Feb. 19	2345	396	5.20
Jan. 17	1145	438	5.52	Feb. 26	1000	205	3.69
				Mar. 26	0945	227	3.87

No flow for many deys.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	3.2	.85	33	20	.31	.18	.08	.04	.02
2	.00	.00	.00	.23	.66	27	13	.29	.19	.09	.05	.02
3	.00	.00	.00	.13	.51	21	10	.31	.21	.06	.05	.03
4	.00	.00	.00	.11	.51	17	8.6	.34	.47	.05	.04	.04
5	.00	.00	.00	.11	.52	14	7.3	e.34	.69	.06	.08	.03
6	.00	.00	.00	2.1	.51	11	6.1	e.30	.36	.07	.10	.04
7	.00	.00	.71	1.9	1.2	8.8	5.0	e.33	.24	.09	.12	.05
8	.00	.00	.00	1.9	24	7.6	4.2	e.30	.15	.10	.06	.05
9	.00	.00	.00	3.3	21	6.4	3.5	e.25	.11	.10	.06	.05
10	.00	.00	.22	14	9.0	5.3	3.0	e.22	.13	.09	.06	.06
11	.00	.00	.90	.77	8.2	4.2	2.4	.34	.14	.07	.07	.05
12	.00	.00	.14	11	6.2	3.6	2.1	.27	.10	.07	.07	.03
13	.00	.00	.03	118	4.8	3.9	1.8	.24	.09	.08	.10	.03
14	.00	.00	.02	196	4.1	3.6	1.6	.23	.09	.09	.10	.05
15	.00	.00	.02	72	3.4	2.7	1.2	.20	.11	.08	.05	.05
16	.00	.00	.02	31	3.5	2.2	1.1	.20	.11	.10	.06	.08
17	.00	.00	.42	177	3.7	2.9	2.4	.23	.10	.07	.06	.06
18	.00	.00	.06	93	21	2.5	1.4	.21	.10	.06	.08	.06
19	.00	.00	.03	36	180	2.6	1.1	.23	.08	.08	.07	.05
20	.00	.00	.03	21	189	2.3	.91	.22	.07	.10	.06	.04
21	.00	.00	.04	15	103	1.8	.72	.21	.08	.09	.07	.04
22	.00	.00	.04	14	56	1.4	.63	.19	.08	.08	.04	.05
23	.00	.00	.04	8.4	49	2.0	.62	.18	.08	.10	.03	.07
24	.00	.00	.04	5.9	58	2.4	.55	.38	.07	.10	.03	.05
25	.00	.00	.03	4.6	71	13	.51	.46	.07	.08	.04	.03
26	.00	.00	.03	3.2	133	136	.51	.23	.06	.09	.03	.02
27	.00	.00	.03	2.1	75	61	.49	.27	.05	.11	.03	.02
28	.00	.00	.20	1.4	47	39	.42	.22	.06	.11	.02	.02
29	.00	.00	1.2	1.2	---	27	.35	.17	.08	.12	.02	.03
30	.00	.00	.22	1.1	---	21	.33	.21	.08	.12	.03	.03
31	.00	---	.09	1.1	---	17	---	.22	---	.08	.04	---
TOTAL	0.00	0.00	4.56	840.75	1074.66	503.2	101.84	8.10	4.43	2.67	1.76	1.25
MEAN	.000	.000	.15	27.1	38.4	16.2	3.39	.26	.15	.086	.057	.042
MAX	.00	.00	1.2	196	189	136	20	.46	.69	.12	.12	.08
MIN	.00	.00	.00	.11	.51	1.4	.33	.17	.05	.05	.02	.02
AC-FT	.00	.00	9.0	1670	2130	998	202	16	8.8	5.3	3.5	2.5

e Estimated.

11152540 EL TORO CREEK NEAR SPRECKELS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.11	.25	.67	4.01	7.34	6.03	2.30	.35	.11	.072	.048	.047
MAX	1.52	2.23	7.08	27.4	77.8	62.2	14.8	5.18	.63	.49	.28	.22
(WY)	1980	1983	1983	1969	1969	1983	1982	1983	1983	1969	1983	1983
MIN	.000	.000	.000	.000	.000	.058	.022	.000	.000	.000	.000	.000
(WY)	1965	1989	1990	1991	1991	1966	1990	1966	1966	1965	1962	1964

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1962 - 1993	
ANNUAL TOTAL	566.23		2543.22			
ANNUAL MEAN	1.55		6.97		1.75	
HIGHEST ANNUAL MEAN					11.3	1983
LOWEST ANNUAL MEAN					.034	1990
HIGHEST DAILY MEAN	159	Feb 15	196	Jan 14	390	Mar 2 1983
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1961
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 29	.00	Oct 1	.00	Oct 6 1961
INSTANTANEOUS PEAK FLOW			463	Jan 14	630	Mar 2 1983
INSTANTANEOUS PEAK STAGE			5.71	Jan 14	6.10	Mar 2 1983
ANNUAL RUNOFF (AC-FT)	1120		5040		1270	
10 PERCENT EXCEEDS	.58		13		1.2	
50 PERCENT EXCEEDS	.01		.10		.10	
90 PERCENT EXCEEDS	.00		.00		.00	

11152600 GABILAN CREEK NEAR SALINAS, CA

LOCATION.--Lat 36°45'21", long 121°36'34", in La Natividad Grant, Monterey County, Hydrologic Unit 18060011, on left bank at downstream side of county road bridge, 0.3 mi downstream from small left-bank tributary, and 6.2 mi northeast of Salinas.

DRAINAGE AREA.--36.7 mi^2.

PERIOD OF RECORD.--October 1970 to current year. January 1959 to September 1970 in reports of Monterey County Flood Control and Water Conservation District.

REVISED RECORDS.--WDR CA-84-2: 1974(M), 1978(P), 1980-83(P).

GAGE.--Water-stage recordar and crest-stage gage. Concrete control since Oct. 9, 1975. Elevation of gage is 200 ft above sea level, from topographic map. Prior to Oct. 9, 1975, on right bank at diffarant datum.

REMARKS.--Records fair above 10 ft^3/s, poor below. Natural flow of stream affected by small diversions, storage reservoirs, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 898 ft^3/s, Apr. 1, 1974, gage height, 11.13 ft, at datum then in use, from reting curve extended above 260 ft^3/s on basis of slope-area measurement of peak flow; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Paak dischargas graatar than base discharge of 60 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 10	0015	65	2.63	Jan. 21	0445	85	2.74
Jan. 14	0900	400	3.57	Feb. 20	0600	146	2.93
Jan. 17	1115	*446	*3.69	Mar. 26	1230	117	2.85

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	3.5	.00	.94	17	4.1	.87	.06	.00	.00
2	.00	.00	.00	.00	.06	.69	14	3.8	.86	.04	.00	.00
3	.00	.00	.00	.00	.00	1.2	12	4.3	.79	.03	.00	.00
4	.00	.00	.00	.00	.00	1.1	12	4.2	1.1	.00	.00	.00
5	.00	.00	.00	.00	.00	1.5	11	3.5	1.4	.00	.00	.00
6	.00	.00	.00	2.7	.00	2.5	9.4	1.6	1.3	.00	.00	.00
7	.00	.00	.00	3.1	.00	2.6	8.5	2.0	1.0	.00	.00	.00
8	.00	.00	.00	6.9	18	2.9	6.0	1.8	.76	.00	.00	.00
9	.00	.00	.00	5.6	12	3.2	5.2	1.4	e.70	.00	.00	.00
10	.00	.00	.20	20	4.9	3.2	7.6	.81	e.70	.00	.00	.00
11	.00	.00	.12	1.7	6.8	2.8	5.2	.56	e.60	.00	.00	.00
12	.00	.00	.00	17	6.8	3.0	3.4	.73	e.60	.00	.00	.00
13	.00	.00	.00	60	7.4	3.3	3.7	.50	e.60	.00	.00	.00
14	.00	.00	.00	138	7.3	e3.5	6.8	.37	e.50	.00	.00	.00
15	.00	.00	.00	42	6.1	e3.6	6.7	.31	e.50	.00	.00	.00
16	.00	.00	.00	16	4.3	e3.7	5.7	.25	e.50	.00	.00	.00
17	.00	.00	.00	146	3.3	e3.7	7.0	.23	e.40	.00	.00	.00
18	.00	.00	.00	74	5.2	e3.8	6.7	.17	e.40	.00	.00	.00
19	.00	.00	.00	34	26	e3.8	5.8	.17	e.40	.00	.00	.00
20	.00	.00	.00	25	74	e3.9	5.2	.31	e.30	.00	.00	.00
21	.00	.00	.00	38	58	e4.0	6.2	.06	e.30	.00	.00	.00
22	.00	.00	.00	14	30	e4.5	6.9	.10	e.20	.00	.00	.00
23	.00	.00	.00	.83	30	2.5	7.0	.07	e.20	.00	.00	.00
24	.02	.00	.00	.24	19	.47	7.0	.82	e.20	.00	.00	.00
25	.00	.00	.00	.16	11	1.9	7.1	7.0	e.10	.00	.00	.00
26	.02	.00	.00	.14	20	69	6.6	3.6	e.10	.00	.00	.00
27	.00	.00	.00	.12	2.9	38	6.8	2.0	e.10	.00	.00	.00
28	.00	.00	.00	.07	1.7	30	6.3	.85	e.10	.00	.00	.00
29	.00	.00	.68	.03	---	23	5.6	.72	.07	.00	.00	.00
30	.00	.00	.02	.01	---	18	4.8	.85	.05	.00	.00	.00
31	.00	---	.00	.00	---	16	---	1.0	---	.00	.00	---
TOTAL	0.04	0.00	1.02	649.10	354.76	262.30	223.2	48.18	15.70	0.13	0.00	0.00
MEAN	.001	.000	.033	20.9	12.7	8.46	7.44	1.55	.52	.004	.000	.000
MAX	.02	.00	.68	146	74	69	17	7.0	1.4	.06	.00	.00
MIN	.00	.00	.00	.00	.00	.47	3.4	.06	.05	.00	.00	.00
AC-FT	.08	.00	2.0	1290	704	520	443	96	31	.3	.00	.00

e Estimated.

11152600 GABILAN CREEK NEAR SALINAS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.042	.53	2.40	7.09	11.8	14.0	8.49	2.20	.90	.30	.13	.033
MAX	.50	6.20	20.0	35.1	88.6	124	58.7	23.4	9.27	5.14	2.85	.58
(WY)	1984	1983	1983	1983	1983	1983	1974	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1971	1971	1972	1972	1972	1972	1972	1971	1971	1971	1971	1971

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1971 - 1993	
ANNUAL TOTAL	119.49		1554.43			
ANNUAL MEAN	.33		4.26		3.95	
HIGHEST ANNUAL MEAN					29.7	1983
LOWEST ANNUAL MEAN					.000	1972
HIGHEST DAILY MEAN	31	Mar 6	146	Jan 17	298	Apr 2 1974
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1970
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 7	.00	Oct 1	.00	Oct 1 1970
INSTANTANEOUS PEAK FLOW			446	Jan 17	898	Apr 1 1974
INSTANTANEOUS PEAK STAGE			3.69	Jan 17	11.13	Apr 1 1974
ANNUAL RUNOFF (AC-FT)	237		3080		2870	
10 PERCENT EXCEEDS	.00		7.5		7.1	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

11156500 SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL, CA

LOCATION.--Lat 36°36'34", long 121°12'07", in SE 1/4 SE 1/4 sec.21, T.15 S., R.7 E., San Benito County, Hydrologic Unit 18060002, on left bank 0.9 mi northwest of Willow Creek School, 1.3 mi downstream from Willow Creek, and 10 mi northwest of San Benito.

DRAINAGE AREA.--249 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1565: 1948(M), 1949. WSP 1315-B: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 925.52 ft above sea level. Prior to Jan. 28, 1948, and Nov. 11, 1955, to Sept. 30, 1965, at site 0.9 mi downstream at different datum. Jan. 28, 1948, to Nov. 10, 1955, and Oct. 1, 1965, to Oct. 22, 1970, at present site at datum 2.37 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Low flow regulated by Hernandez Reservoir 40 mi upstream beginning in December 1961, capacity, 18,500 acre-ft. Small diversions upstream from station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,210 ft^3/s, Apr. 3, 1958, gage height, 8.35 ft, site and datum then in use, from rating curve extended above 600 ft^3/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of February 1938 reached a stage of about 9.0 ft, from floodmarks at former site 0.9 mi downstream, referenced to datum used at that site.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 14	1300	1,660	8.51	Feb. 19	1300	987	7.77
Jan. 17	e2400	*2,470	*9.44	Mar. 26	e1000	556	7.22
Feb. 8	e1800	e573	e7.22				

Minimum daily, 0.26 ft^3/s, Oct. 14-16, 19, 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	.38	.46	12	e11	245	e141	35	32	27	63	63
2	.33	.35	.48	42	e10	202	e129	40	30	26	59	60
3	.37	.35	.52	13	e10	176	e113	33	31	27	59	57
4	.36	.35	.49	7.6	e9.8	155	e100	32	36	28	60	55
5	.33	.35	.46	11	e12	139	e91	27	50	27	56	55
6	.37	.35	1.3	12	e10	125	e83	21	46	27	56	54
7	.40	.35	11	72	e16	113	e76	22	44	28	55	54
8	.40	.35	7.4	83	e263	95	e70	23	39	27	56	55
9	.40	.38	2.8	57	320	88	e65	30	37	26	56	57
10	.37	.40	2.1	64	247	83	e60	26	33	36	54	59
11	.35	.40	9.8	91	173	76	e56	26	33	45	56	60
12	.35	.44	9.1	62	121	69	e53	36	32	45	59	59
13	.29	.44	5.3	183	82	65	e50	32	30	46	58	59
14	.26	.40	3.6	686	56	64	e47	29	29	45	60	57
15	.26	.40	3.6	177	e33	62	e45	29	28	45	62	59
16	.26	.40	3.4	215	e42	59	e43	27	28	44	63	63
17	.27	.40	2.8	e672	e60	62	e41	25	27	45	62	64
18	.27	.40	3.7	e891	e123	58	e39	30	27	42	60	69
19	.26	.41	2.2	e290	e805	54	e38	36	26	40	58	66
20	.26	.44	2.3	e166	e749	50	e36	43	27	42	60	65
21	.31	.43	2.4	e109	e480	47	e35	45	27	46	61	62
22	.29	.46	1.9	e68	e300	46	e34	42	28	47	63	64
23	.27	.46	1.5	e40	e389	47	e35	39	29	46	63	64
24	.28	.46	1.5	e29	e416	72	32	37	28	43	63	63
25	.28	.46	1.8	e22	e256	162	30	40	26	43	65	45
26	.27	.46	1.7	e18	e287	e460	29	36	26	43	64	37
27	.28	.46	1.6	e16	389	e324	29	33	26	53	64	36
28	.28	.46	1.9	e14	309	e261	31	30	26	62	63	35
29	.36	.41	51	e13	---	e226	25	28	28	64	62	36
30	.55	.43	42	e12	---	e193	22	28	28	65	65	36
31	.43	---	9.0	e11	---	e166	---	33	---	64	66	---
TOTAL	10.11	12.23	189.11	4158.6	5978.8	4044	1678	993	937	1294	1871	1668
MEAN	.33	.41	6.10	134	214	130	55.9	32.0	31.2	41.7	60.4	55.6
MAX	.55	.46	51	891	805	460	141	45	50	65	66	69
MIN	.26	.35	.46	7.6	9.8	46	22	21	26	26	54	35
AC-FT	20	24	375	8250	11860	8020	3330	1970	1860	2570	3710	3310

e Estimated.

11156500 SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.25	4.36	15.9	29.2	59.7	69.0	42.8	21.1	20.0	14.7	13.4	10.1
MAX	42.2	20.1	181	238	471	655	532	130	88.5	79.2	71.0	67.2
(WY)	1974	1976	1956	1952	1941	1983	1958	1983	1962	1967	1967	1978
MIN	.013	.069	.095	.081	.11	.23	.21	.15	.078	.019	.000	.000
(WY)	1962	1990	1991	1990	1991	1977	1990	1961	1989	1961	1961	1961

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1940 - 1993	
ANNUAL TOTAL	6501.87		22833.85			
ANNUAL MEAN	17.8		62.6		25.3	
HIGHEST ANNUAL MEAN					126	1941
LOWEST ANNUAL MEAN					.15	1990
HIGHEST DAILY MEAN	333	Feb 15	891	Jan 18	3540	Apr 3 1958
LOWEST DAILY MEAN	.23	Jul 9	.26	Oct 14	.00	Sep 19 1947
ANNUAL SEVEN-DAY MINIMUM	.26	Oct 14	.26	Oct 14	.00	Sep 19 1947
INSTANTANEOUS PEAK FLOW			2470	Jan 17	8210	Apr 3 1958
INSTANTANEOUS PEAK STAGE			9.44	Jan 17	8.35	Apr 3 1958
ANNUAL RUNOFF (AC-FT)	12900		45290		18310	
10 PERCENT EXCEEDS	51		127		55	
50 PERCENT EXCEEDS	.98		36		3.2	
90 PERCENT EXCEEDS	.34		.40		.17	

11158600 SAN BENITO RIVER AT STATE HIGHWAY 156, NEAR HOLLISTER, CA

LOCATION.--Lat 36°51'07", long 121°25'44", in San Justo Grant, San Benito County, Hydrologic Unit 18060002, on right bank at downstream side of bridge on State Highway 156 and 1.6 mi west of Hollister.

DRAINAGE AREA.--607 mi^2.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 260 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Low flows regulated by Hernandez Reservoir 73 mi upstream, capacity, 18,500 acre-ft. Some diversions upstream from station for irrigation. Percolation ponds are constructed upstream from station during summer months.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,900 ft^3/s, Mar. 1, 1983, gage height, 11.97 ft, from rating curve extended above 4,100 ft^3/s; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 15	0530	1,590	5.97	Feb. 20	1615	*1,960	*6.37
Jan. 17	2100	1,890	6.30	Feb. 26	1545	1,810	6.21
Feb. 09	1100	1,090	5.33	Mar. 26	0830	e1,000	e5.20

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	3.1	5.7	2.1	366	106	e3.3	7.6	e10	5.3	8.2
2	.00	.00	3.2	.54	1.7	251	78	e2.1	7.3	e10	5.0	9.0
3	.00	.00	3.1	.00	3.4	e175	54	e1.1	7.6	e10	4.4	9.7
4	.00	.00	2.4	.00	8.8	e138	e44	e3.9	9.7	e10	3.9	10
5	.00	.00	.20	.00	6.2	e108	e41	e2.4	12	e10	4.1	11
6	.00	.00	1.3	2.0	7.0	e85	e40	e5.9	14	10	4.2	12
7	.00	.00	1.6	4.7	5.0	e64	e37	e5.9	11	9.9	4.6	9.0
8	.00	.00	.14	2.7	77	e60	e31	e6.3	6.6	10	4.8	.00
9	.00	.41	.00	9.8	639	e44	e28	e6.3	5.3	10	4.8	.00
10	.00	1.3	1.3	22	294	e40	e27	e5.6	3.3	10	5.2	.00
11	.00	1.6	2.0	4.5	85	e38	e26	e4.7	3.2	11	6.4	.01
12	.00	1.7	.53	11	44	e27	e24	e5.6	.00	e10	6.8	.44
13	.00	1.7	.00	41	26	e29	e21	e6.7	.00	10	7.0	2.9
14	.00	1.6	.00	406	14	e29	e17	e7.5	.00	11	8.3	5.5
15	.00	1.6	.00	599	4.7	e23	e17	e6.7	.00	10	9.2	5.3
16	.00	1.6	.00	252	3.8	e25	e15	e6.3	2.7	10	8.9	5.9
17	.00	1.7	.09	560	14	e20	e15	e6.7	55	9.4	9.2	7.2
18	.00	2.3	.00	1170	23	e28	e14	e6.7	60	8.7	9.7	8.5
19	.00	2.6	.00	356	485	e21	e13	e6.7	37	7.7	9.8	9.7
20	.00	2.7	.00	91	1490	e17	e11	e6.7	2.6	7.0	9.8	8.2
21	.30	3.0	.00	70	1200	e15	e4.1	e6.7	.00	6.9	10	7.9
22	.00	3.0	.00	212	e582	e12	e1.3	e7.9	.00	5.7	11	8.6
23	.00	3.0	.00	108	396	e12	e7.9	e8.3	.02	5.5	10	8.9
24	.00	3.1	.00	43	631	e12	e7.0	e8.3	e9.7	5.3	9.2	9.2
25	.00	3.1	.00	18	451	26	e3.5	e3.9	e12	4.4	8.3	9.2
26	.00	3.0	.00	7.3	1180	e495	e3.5	e1.7	e12	4.2	8.8	9.2
27	.00	2.7	.00	4.8	e800	541	e6.7	6.0	e11	4.3	8.9	5.2
28	.00	2.7	.70	3.4	e502	425	e9.7	7.0	e11	4.2	8.5	.00
29	.00	2.9	1.7	2.5	---	334	e9.2	6.2	e11	4.2	8.5	.54
30	.49	3.0	1.0	2.0	---	227	e6.7	4.8	e11	4.8	8.3	3.6
31	.00	---	.00	2.3	---	151	---	6.3	---	5.0	8.1	---
TOTAL	0.79	50.31	22.36	4011.24	8975.7	3838	718.6	174.2	322.62	249.2	231.0	184.89
MEAN	.025	1.68	.72	129	321	124	24.0	5.62	10.8	8.04	7.45	6.16
MAX	.49	3.1	3.2	1170	1490	541	106	8.3	60	11	11	12
MIN	.00	.00	.00	.00	1.7	12	1.3	1.1	.00	4.2	3.9	.00
AC-FT	1.6	100	44	7960	17800	7610	1430	346	640	494	458	367

e Estimated.

11158600 SAN BENITO RIVER AT STATE HIGHWAY 156, NEAR HOLLISTER, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.93	4.60	16.1	52.1	108	113	33.9	10.7	6.10	4.94	5.28	4.70
MAX	8.73	38.2	154	335	613	1545	373	184	18.1	18.0	18.6	16.3
(WY)	1974	1984	1984	1983	1978	1983	1983	1983	1983	1980	1978	1973
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1973	1975	1977	1977	1977	1977	1977	1976	1972	1972	1972	1972

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1971 - 1993	
ANNUAL TOTAL	1208.02		18778.91			
ANNUAL MEAN	3.30		51.4		29.7	
HIGHEST ANNUAL MEAN					269	1983
LOWEST ANNUAL MEAN					.000	1977
HIGHEST DAILY MEAN	200	Feb 13	1490	Feb 20	8860	Mar 1 1983
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Feb 1 1971
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 11 1971
INSTANTANEOUS PEAK FLOW			1960	Feb 20	13900	Mar 1 1983
INSTANTANEOUS PEAK STAGE			6.37	Feb 20	11.97	Mar 1 1983
ANNUAL RUNOFF (AC-FT)	2400		37250		21540	
10 PERCENT EXCEEDS	8.5		77		24	
50 PERCENT EXCEEDS	.00		6.6		.63	
90 PERCENT EXCEEDS	.00		.00		.00	

11159000 PAJARO RIVER AT CHITTENDEN, CA

LOCATION.--Lat 36°54'01", long 121°35'48", in Salsipuedes Grant, Santa Cruz County, Hydrologic Unit 18060002, on left bank at downstream side of bridge on State Highway 129, 0.6 mi downstream from Pescadero Creek, 0.6 mi southeast of Chittenden, and 2.3 mi downstream from San Benito River.
DRAINAGE AREA.--1,186 mi^2.
PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1954, published as "near Chittenden."
CHEMICAL DATA: Water years 1952-92.
BIOLOGICAL DATA: Water years 1978-81.
SPECIFIC CONDUCTANCE: Water years 1978-81, daily.
WATER TEMPERATURE: Water years 1978-81, daily.
SEDIMENT DATA: Water years 1978-92.
GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 81.89 ft above sea level. Prior to May 13, 1949, nonrecording gage on former bridge 100 ft downstream at same datum except for periods in 1947 and 1948 when a water-stage recorder was in use.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Low flows regulated by Hernandez Reservoir, capacity, 18,500 acre-ft; Pacheco Lake, capacity, 6,140 acre-ft; Chesbro Reservoir, capacity, 8,090 acre-ft; Uvas Reservoir, capacity, 9,950 acre-ft; and San Felipe Lake. Many diversions upstream from station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft^3/s, Dec. 24, 1955, gage height, 32.46 ft, from rating curve extended above 8,300 ft^3/s on basis of slope-conveyance study; maximum gage height, 33.11 ft, Apr. 3, 1958; no flow at times in July and August 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1938 reached a stage of 31.3 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	1730	1,470	12.90	Feb. 20	1545	4,050	19.65
Jan. 14	0230	*6,630	*24.85	Mar. 27	1545	1,720	13.10
Feb. 9	1700	2,080	14.34				

Minimum daily, 0.12 ft^3/s, Nov. 15, 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.73	.17	60	327	1300	486	55	27	12	10	7.8
2	.16	.95	.17	230	288	1060	415	51	26	14	8.7	7.5
3	.16	.97	.36	109	255	871	351	49	25	13	8.8	8.9
4	.30	.60	.49	42	230	722	309	46	25	13	9.2	9.6
5	.32	.45	.49	26	208	618	263	43	28	12	9.8	8.5
6	.46	.39	.85	21	193	528	225	41	29	12	9.9	7.6
7	.50	.23	2.1	787	180	456	198	41	30	11	10	7.4
8	.44	.22	2.2	753	450	384	187	41	28	11	10	6.6
9	.27	.25	3.5	361	1580	325	175	41	25	11	9.3	5.9
10	.27	.19	4.0	360	1410	295	161	40	24	11	8.5	6.5
11	.19	.17	7.8	286	1010	272	151	38	23	11	8.5	6.1
12	.18	.22	7.7	235	849	246	142	36	21	11	9.3	6.4
13	.19	.20	5.0	3310	713	243	135	30	22	10	9.4	7.0
14	.19	.13	3.3	5600	611	235	128	30	20	10	10	6.8
15	.19	.12	2.5	3710	521	221	122	28	19	11	11	6.2
16	.19	.13	2.1	2930	454	207	115	27	17	11	9.6	6.7
17	.19	.16	1.8	2960	412	221	114	27	20	11	9.1	8.1
18	.23	.15	1.9	4940	449	225	135	27	16	15	8.7	9.8
19	.27	.13	1.7	3480	1400	209	135	28	15	15	9.1	8.7
20	.23	.12	e1.5	1960	3580	189	120	28	17	14	8.5	7.5
21	.33	.13	e1.4	3160	3080	175	107	28	16	13	8.5	7.0
22	.27	.14	e1.3	3400	1940	167	91	27	15	15	8.5	6.6
23	.27	.16	e1.2	2580	1620	163	80	27	16	14	8.1	7.2
24	.29	.17	e1.2	1720	1870	186	77	29	15	13	7.8	7.4
25	.30	.16	e1.1	1320	1510	215	73	33	15	13	8.0	7.2
26	.30	.17	e1.1	1040	2650	758	68	33	14	12	7.9	7.1
27	.32	.19	e1.0	854	2600	1380	65	33	14	11	7.8	7.3
28	.28	.17	2.1	701	1740	1130	59	33	14	11	6.8	6.2
29	.49	.18	58	558	---	911	57	29	12	10	7.2	6.2
30	.37	.18	133	467	---	703	59	27	12	12	8.0	6.6
31	.32	---	69	385	---	571	---	27	---	11	7.6	---
TOTAL	8.65	8.16	320.03	48345	32130	15186	4803	1073	600	374	273.6	218.4
MEAN	.28	.27	10.3	1560	1147	490	160	34.6	20.0	12.1	8.83	7.28
MAX	.50	.97	133	5600	3580	1380	486	55	30	15	11	9.8
MIN	.16	.12	.17	21	180	163	57	27	12	10	6.8	5.9
AC-FT	17	16	635	95890	63730	30120	9530	2130	1190	742	543	433

e Estimated.

11159000 PAJARO RIVER AT CHITTENDEN, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.16	32.1	138	382	508	426	254	45.6	13.5	7.25	5.74	6.25
MAX	22.7	843	1990	2350	2641	4227	3165	646	92.9	26.2	22.1	93.3
(WY)	1984	1951	1956	1952	1969	1983	1958	1983	1983	1983	1983	1959
MIN	.10	.27	.60	1.22	1.28	1.50	.97	.75	.66	.37	.37	.24
(WY)	1962	1993	1962	1991	1991	1977	1977	1977	1977	1961	1948	1961

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1940 - 1993	
ANNUAL TOTAL	10614.65		103339.84			
ANNUAL MEAN	29.0		283		150	
HIGHEST ANNUAL MEAN					905	1983
LOWEST ANNUAL MEAN					1.06	1977
HIGHEST DAILY MEAN	1160	Feb 16	5600	Jan 14	21700	Dec 24 1955
LOWEST DAILY MEAN	.12	Nov 15	.12	Nov 15	.00	Jul 11 1948
ANNUAL SEVEN-DAY MINIMUM	.13	Nov 14	.13	Nov 14	.00	Aug 16 1948
INSTANTANEOUS PEAK FLOW			6630	Jan 14	24000	Dec 24 1955
INSTANTANEOUS PEAK STAGE			24.85	Jan 14	33.11	Apr 3 1958
ANNUAL RUNOFF (AC-FT)	21050		205000		108800	
10 PERCENT EXCEEDS	57		770		218	
50 PERCENT EXCEEDS	3.1		14		10	
90 PERCENT EXCEEDS	.23		.23		1.0	

11159200 CORRALITOS CREEK AT FREEDOM, CA

LOCATION.--Lat 36°56'22", long 121°46'10", in Los Corralitos Grant, Santa Cruz County, Hydrologic Unit 18060002, on right bank just upstream from Green Valley Road Bridge, 0.2 mi north of Freedom, and 2.3 mi north of Watsonville.

DRAINAGE AREA.--27.8 mi^2.

PERIOD OF RECORD.--October 1956 to current year.
SEDIMENT DATA: Water years 1976-77, 1980-81.

GAGE.--Water-stage recorder. Datum of gage is 89.43 ft above sea level.

REMARKS.--Records fair. No regulation; Watsonville Water Works can divert up to 8.0 ft^3/s upstream from station for municipal supply, domestic use, and irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,610 ft^3/s, Jan. 4, 1982, gage height, 16.66 ft, from rating curve extended above 1,400 ft^3/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 15.6 ft, from floodmarks, discharge, 3,620 ft^3/s based on contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 13	1000	*1,490	*8.79	Jan. 20	2300	1,020	7.75

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	95	28	96	18	3.1	e.30	.00	.00	.00
2	.00	.00	.00	53	25	82	16	2.0	e.23	.00	.00	.00
3	.00	.00	.73	29	23	71	14	2.1	e.20	.00	.00	.00
4	.00	.00	.00	20	21	61	13	2.0	e1.1	.00	.00	.00
5	.00	.00	.00	16	22	53	12	2.0	e6.0	.00	.00	.00
6	.00	.00	6.5	31	19	48	12	1.6	e2.7	.00	.00	.00
7	.00	.00	28	154	22	42	11	1.2	e1.3	.00	.00	.00
8	.00	.00	3.5	87	57	37	10	1.2	e.69	.00	.00	.00
9	.00	.00	98	51	54	33	9.7	1.1	.30	.00	.00	.00
10	.00	.00	33	56	42	29	8.9	.95	.13	.00	.00	.00
11	.00	.00	38	38	49	26	8.7	.84	.03	.00	.00	.00
12	.00	.00	13	63	40	23	8.0	.84	.06	.00	.00	.00
13	.00	.00	4.4	868	35	20	7.7	.84	.00	.00	.00	.00
14	.00	.00	1.1	292	31	18	7.4	.84	.00	.00	.00	.00
15	.00	.00	.41	154	28	16	6.6	.78	.00	.00	.00	.00
16	.00	.00	.20	123	27	14	6.3	.75	.00	.00	.00	.00
17	.00	.00	3.3	207	32	23	14	.67	.00	.00	.00	.00
18	.00	.00	.38	197	64	15	14	.64	.00	.00	.00	.00
19	.00	.00	.05	116	127	12	9.6	.53	.00	.00	.00	.00
20	.00	.00	.00	330	112	10	7.9	.45	.00	.00	.00	.00
21	.00	.00	.00	549	75	8.4	6.7	.37	.03	.00	.00	.00
22	.00	.00	.00	427	63	7.5	6.3	.30	.00	.00	.00	.00
23	.00	.00	.00	168	97	9.1	5.9	.26	.00	.00	.00	.00
24	.00	.00	.00	110	98	25	6.2	.41	.00	.00	.00	.00
25	.00	.00	.00	82	91	21	5.4	5.2	.00	.00	.00	.00
26	.00	.00	.00	67	205	31	4.8	1.7	.00	.00	.00	.00
27	.00	.00	.00	55	140	28	4.7	1.1	.00	.00	.00	.00
28	.00	.00	125	46	113	26	4.5	.88	.00	.00	.00	.00
29	3.0	.00	94	39	---	22	3.7	.70	.00	.00	.00	.00
30	.18	.00	44	35	---	20	3.3	.52	.00	.00	.00	.00
31	.00	---	26	31	---	18	---	e.38	---	.00	.00	---
TOTAL	3.18	0.00	519.57	4589	1740	945.0	266.3	36.25	13.07	0.00	0.00	0.00
MEAN	.10	.000	16.8	148	62.1	30.5	8.88	1.17	.44	.000	.000	.000
MAX	3.0	.00	125	868	205	96	18	5.2	6.0	.00	.00	.00
MIN	.00	.00	.00	16	19	7.5	3.3	.26	.00	.00	.00	.00
AC-FT	6.3	.00	1030	9100	3450	1870	528	72	26	.00	.00	.00

e Estimated.

11159200 CORRALITOS CREEK AT FREEDOM, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.90	5.39	13.8	42.7	52.1	35.7	22.8	4.42	.89	.37	.17	.68
MAX	17.4	37.3	86.7	167	256	209	166	39.1	9.10	4.77	1.15	20.8
(WY)	1963	1984	1965	1982	1986	1983	1958	1983	1983	1983	1983	1959
MIN	.000	.000	.000	.000	.003	.076	.000	.000	.000	.000	.000	.000
(WY)	1962	1981	1991	1991	1991	1988	1977	1977	1962	1961	1961	1961

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1957 - 1993	
ANNUAL TOTAL	2566.12		8112.37			
ANNUAL MEAN	7.01		22.2		14.8	
HIGHEST ANNUAL MEAN					56.4	1983
LOWEST ANNUAL MEAN					.17	1977
HIGHEST DAILY MEAN	540	Feb 20	868	Jan 13	2290	Jan 4 1982
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jun 12 1957
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 10	.00	Oct 1	.00	Jun 12 1957
INSTANTANEOUS PEAK FLOW			1490	Jan 13	5610	Jan 4 1982
INSTANTANEOUS PEAK STAGE			8.79	Jan 13	16.66	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	5090		16090		10720	
10 PERCENT EXCEEDS	11		59		30	
50 PERCENT EXCEEDS	.00		.05		.37	
90 PERCENT EXCEEDS	.00		.00		.00	

11160000 SOQUEL CREEK AT SOQUEL, CA

LOCATION.--Lat 36°59'29", long 121°57'17", in NE 1/4 sec.10, T.11 S., R.1 W., Santa Cruz County, Hydrologic Unit 18060001, on left bank 0.2 mi upstream from highway bridge in town of Soquel and 0.4 mi downstream from Bates Creek.

DRAINAGE AREA.--40.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 1715: Drainage area. WSP 2129: 1958, 1959-60(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 21.38 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation; many diversions upstream from station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft^3/s, Dec. 23, 1955, gage height, 22.33 ft, from rating curve extended above 2,900 ft^3/s on basis of slope-area measurement of peak flow; no flow at times in 1977, 1988, 1992, and 1993.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 13	0615	*2,800	*10.09	Feb. 18	2230	1,450	7.55
Jan. 20	2200	1,830	8.37				

No flow Oct. 3-13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	3.7	2.2	299	60	127	51	14	12	5.7	3.0	e1.8
2	.10	2.9	4.4	109	56	110	46	13	10	5.8	2.7	e1.7
3	.00	2.1	16	48	54	98	42	14	10	6.2	2.5	e1.7
4	.00	1.8	7.4	38	51	88	40	14	15	5.7	2.5	e1.7
5	.00	1.6	5.3	34	52	82	36	13	23	5.7	2.5	e1.7
6	.00	1.5	19	83	48	77	34	13	20	5.5	2.5	e1.7
7	.00	1.5	54	559	49	72	34	13	16	5.3	2.6	e1.7
8	.00	1.5	15	282	e82	68	33	13	14	5.4	2.2	e1.7
9	.00	1.6	163	160	88	64	30	12	13	5.6	2.2	e1.7
10	.00	1.4	108	160	68	61	30	13	12	5.3	2.1	e1.7
11	.00	1.3	104	97	113	58	28	12	12	5.2	1.7	e1.7
12	.00	1.5	30	221	75	56	27	12	11	5.0	1.7	e1.7
13	.00	1.6	19	1610	64	54	26	11	10	5.0	2.1	e1.8
14	.11	1.8	14	546	59	53	24	10	8.8	5.0	2.6	e1.7
15	.08	1.6	11	329	56	51	24	9.7	7.4	4.9	2.8	e1.7
16	.06	1.9	9.6	272	52	48	24	9.7	7.5	4.6	2.7	e1.7
17	.04	1.7	11	534	109	57	39	10	7.3	4.3	2.4	e1.7
18	.02	2.7	10	574	494	50	39	9.8	7.3	4.0	2.2	e1.7
19	.05	2.3	8.3	247	707	46	28	9.2	7.3	3.9	2.0	e1.6
20	.14	2.4	7.8	860	449	43	24	9.2	7.2	4.3	1.7	e1.6
21	.96	2.5	7.2	923	262	41	23	9.2	6.9	5.0	1.9	e1.6
22	.50	3.2	6.8	833	184	39	21	9.2	6.7	3.4	2.0	e1.6
23	.39	3.4	6.5	424	242	42	21	9.3	6.8	e3.6	2.0	e1.6
24	.29	3.1	5.8	e310	202	80	21	11	6.5	e3.8	2.0	e1.6
25	.30	2.9	5.5	e235	156	55	20	22	6.2	e4.0	1.9	e1.6
26	.44	2.7	5.3	e185	401	98	18	12	6.6	e4.1	1.7	e1.5
27	.52	2.7	5.3	e153	214	78	18	12	6.4	4.2	1.6	e1.6
28	.53	2.5	138	e120	156	74	17	11	6.2	3.8	1.3	e1.6
29	22	2.5	141	e90	---	62	16	10	6.2	3.7	1.3	e1.6
30	16	2.5	63	71	---	55	16	9.8	6.1	3.5	1.6	e1.6
31	6.3	---	29	64	---	51	---	14	---	3.3	1.7	---
TOTAL	48.87	66.4	1032.4	10470	4603	2038	850	364.1	295.4	144.8	65.7	49.9
MEAN	1.58	2.21	33.3	338	164	65.7	28.3	11.7	9.85	4.67	2.12	1.66
MAX	22	3.7	163	1610	707	127	51	22	23	6.2	3.0	1.8
MIN	.00	1.3	2.2	34	48	39	16	9.2	6.1	3.3	1.3	1.5
AC-FT	97	132	2050	20770	9130	4040	1690	722	586	287	130	99

e Estimated.

11160000 SOQUEL CREEK AT SOQUEL, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.73	17.0	60.3	113	117	94.0	56.2	18.6	8.75	4.93	3.11	3.13
MAX	111	78.5	625	437	596	577	324	95.9	28.8	15.3	10.5	22.4
(WY)	1963	1973	1956	1952	1986	1983	1982	1983	1983	1983	1983	1959
MIN	.65	1.36	2.74	2.57	3.96	3.97	2.81	2.26	.81	.26	.17	.11
(WY)	1989	1991	1991	1991	1977	1988	1977	1977	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1951 - 1993	
ANNUAL TOTAL	7792.12		20028.57			
ANNUAL MEAN	21.3		54.9		41.5	
HIGHEST ANNUAL MEAN					169	1983
LOWEST ANNUAL MEAN					2.89	1977
HIGHEST DAILY MEAN	659	Feb 20	1610	Jan 13	8800	Dec 23 1955
LOWEST DAILY MEAN	.00	Aug 15	.00	Oct 3	.00	Jul 30 1977
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 15	.00	Oct 3	.00	Aug 15 1992
INSTANTANEOUS PEAK FLOW			2800	Jan 13	15800	Dec 23 1955
INSTANTANEOUS PEAK STAGE			10.09	Jan 13	22.33	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	15460		39730		30100	
10 PERCENT EXCEEDS	35		123		79	
50 PERCENT EXCEEDS	4.6		9.2		7.3	
90 PERCENT EXCEEDS	.06		1.5		1.5	

11160000 SOQUEL CREEK AT SOQUEL, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952-79, January 1990 to May 1993 (discontinued).
CHEMICAL DATA: Water years 1952-66, 1977.
WATER TEMPERATURE: Water years 1966-79.
SEDIMENT DATA: Water years 1976-77, January 1990 to May 1993 (discontinued).

PERIOD OF DAILY RECORDS.--
WATER TEMPERATURE: January 1966 to February 1979.

REMARKS.--Zero bedload discharge observed for flows less than 15 ft^3/s during current year.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV										
12...	1125	1.6	9.0	1	0.00	--	--	--	--	--
DEC										
03...	1240	15	10.0	80	3.2	94	96	100	--	--
08...	1110	12	8.5	13	0.42	71	--	--	--	--
29...	1500	102	9.5	388	107	49	51	62	96	100
JAN										
12...	1045	71	7.5	95	18	36	--	--	--	--
13...	1350	1600	11.5	6780	29300	58	72	91	98	100
29...	1445	83	12.0	94	21	39	--	--	--	--
FEB										
16...	1315	52	10.0	22	3.1	54	--	--	--	--
*26...	1515	349	11.0	457	431	--	--	--	--	--
MAR										
30...	1215	56	12.5	20	3.0	44	--	--	--	--
MAY										
10...	1630	15	15.0	6	0.24	--	--	--	--	--

* Sample collected at center of flow only.

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM
NOV								
12...	1155	1	1.6	9.0	2	15	40	48
12...	1200	1	1.6	9.0	1	4	14	19
12...	1206	1	1.6	9.0	1	3	11	15
12...	1210	1	1.6	9.0	1	2	9	14
12...	1215	1	1.6	9.0	--	--	2	6
12...	1222	1	1.6	9.0	--	--	1	4
12...	1226	1	1.6	9.0	--	--	3	11
12...	1235	1	1.6	9.0	1	3	21	62
12...	1240	1	1.6	9.0	7	24	61	93
DEC								
29...	1400	1	110	9.0	18	42	91	97
29...	1405	1	110	9.0	1	4	13	18
29...	1410	1	109	9.0	--	--	2	3
29...	1413	1	108	9.0	--	--	1	4
29...	1420	1	108	9.0	--	--	1	4
29...	1425	1	108	9.0	--	--	--	1
29...	1430	1	108	9.0	--	--	3	36
29...	1435	1	106	9.0	--	1	14	47
29...	1440	1	104	9.0	10	30	68	92
FEB								
16...	1347	1	51	10.0	--	1	3	7
16...	1349	1	51	10.0	--	--	3	8
16...	1352	1	51	10.0	--	--	1	4
16...	1355	1	51	10.0	--	--	1	7
16...	1407	1	51	10.0	--	--	2	8
16...	1410	1	51	10.0	--	--	1	8
16...	1415	1	51	10.0	--	1	7	29
16...	1422	1	51	10.0	6	10	30	83
16...	1430	1	51	10.0	11	44	92	100

11160000 SOQUEL CREEK AT SOQUEL, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM
MAR								
30...	1316	1	55	12.5	2	6	12	16
30...	1325	1	55	12.5	--	1	4	6
30...	1333	1	55	12.5	--	--	2	5
30...	1336	1	55	12.5	--	--	1	5
30...	1339	1	56	12.5	--	--	2	10
30...	1342	1	56	12.5	--	--	2	9
30...	1350	1	56	12.5	--	--	3	17
30...	1355	1	55	12.5	4	10	29	84
30...	1358	1	55	12.5	8	36	84	97

DATE	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
NOV								
12...	50	51	52	54	57	72	91	100
12...	20	21	23	29	44	70	100	--
12...	16	17	21	27	40	86	100	--
12...	17	20	25	34	47	70	100	--
12...	9	12	16	22	34	53	88	100
12...	8	13	19	28	44	76	100	--
12...	22	33	42	58	78	97	100	--
12...	79	83	86	87	90	93	100	--
12...	100	--	--	--	--	--	--	--
DEC								
29...	98	99	100	--	--	--	--	--
29...	19	19	21	25	36	67	100	--
29...	4	4	6	12	28	65	100	--
29...	6	10	16	25	43	67	100	--
29...	9	16	22	31	46	70	100	--
29...	2	3	6	11	24	73	100	--
29...	76	91	96	98	100	--	--	--
29...	79	90	92	94	100	--	--	--
29...	97	99	100	--	--	--	--	--
FEB								
16...	8	10	13	20	35	61	100	--
16...	10	20	32	46	64	100	--	--
16...	10	14	18	24	36	73	100	--
16...	12	16	20	25	38	65	100	--
16...	21	33	43	52	66	81	100	--
16...	18	25	31	38	50	70	100	--
16...	50	64	70	75	81	89	100	--
16...	96	98	100	--	--	--	--	--
16...	--	--	--	--	--	--	--	--
MAR								
30...	17	18	22	27	37	58	100	--
30...	7	9	14	21	36	63	100	--
30...	7	11	18	27	40	69	100	--
30...	11	18	24	32	51	88	100	--
30...	25	36	42	47	57	77	100	--
30...	20	28	33	38	47	71	100	--
30...	42	61	70	73	79	91	100	--
30...	95	99	100	--	--	--	--	--
30...	99	100	--	--	--	--	--	--

11160000 SOQUEL CREEK AT SOQUEL, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORI-ZONTAL WIDTH OF VER-TICAL (FEET)	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)
DEC										
29...	1250	1000	1150	0.250	0	1242	1301	30	1.0	2
29...	1310	1000	1150	0.250	0	1305	1320	30	1.0	2
JAN										
12...	1115	1000	1150	0.250	0	1113	1120	20	1.0	2
12...	1125	1000	1150	0.250	0	1121	1130	20	1.0	2
13...	1425	1000	1140	0.250	0	1410	1438	15	4.0	1
29...	1625	1000	1150	0.250	0	1615	1630	20	2.0	2
29...	1655	1000	1150	0.250	0	1645	1700	20	2.0	2
FEB										
16...	1220	1000	1150	0.250	0	1210	1228	30	1.0	2
16...	1240	1000	1150	0.250	0	1234	1250	30	1.0	2
MAR										
30...	1240	1000	1150	0.250	0	1229	1248	30	1.0	2
30...	1300	1000	1150	0.250	0	1250	1308	30	1.0	2

DATE	VER-TICALS IN COM-POSITE SAMPLE (NUM)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
DEC									
29...	25	25	--	116	9.5	0.68	20	--	--
29...	25	25	--	115	9.5	0.87	20	--	--
JAN									
12...	20	20	--	78	7.5	1.85	39	--	--
12...	20	20	--	79	7.5	2.01	39	--	--
13...	10	10	2.00	1740	11.5	15.9	636	1	2
29...	14	14	2.00	78	12.0	0.23	5.9	--	--
29...	14	14	2.00	78	12.0	0.19	5.9	--	--
FEB									
16...	26	26	7.00	52	10.0	0.67	16	--	--
16...	26	26	7.00	52	10.0	0.53	16	--	--
MAR									
30...	28	28	6.00	56	12.5	0.20	5.0	--	--
30...	28	28	6.00	56	12.5	0.16	5.0	--	--

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
DEC									
29...	16	75	94	97	99	99	100	--	--
29...	13	68	90	96	98	100	--	--	--
JAN									
12...	5	33	66	87	95	98	99	100	--
12...	7	49	82	93	96	98	99	100	--
13...	10	31	54	73	84	90	94	97	100
29...	5	46	75	89	95	98	100	--	--
29...	5	55	76	83	86	88	92	100	--
FEB									
16...	3	22	45	62	72	81	87	100	--
16...	2	27	52	71	80	84	89	100	--
MAR									
30...	1	8	23	40	52	58	69	77	100
30...	1	8	16	26	34	41	49	73	100

11160020 SAN LORENZO RIVER NEAR BOULDER CREEK, CA

LOCATION.--Lat 37°12'24", long 122°08'38", in NE 1/4 SW 1/4 sec.25, T.8 S., R.3 W., Santa Cruz County, Hydrologic Unit 18060001, on right bank 22 ft upstream from culvert on State Highway 9, 100 ft upstream from small right-bank tributary, and 5.8 mi north of town of Boulder Creek.

DRAINAGE AREA.--6.17 mi^2.

PERIOD OF RECORD.--July 1968 through December 1992 (discontinued).
CHEMICAL DATA: Water years 1973-75, 1977, 1980-81.
SEDIMENT DATA: Water year 1976.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 710 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good except for daily discharges greater than 5.0 ft^3/s, which are fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft^3/s, Jan. 4, 1982, gage height, 11.48 ft, from rating curve extended above 230 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.08 ft^3/s, Aug. 2, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64	.63	.63	---	---	---	---	---	---	---	---	---
2	.68	.63	.81	---	---	---	---	---	---	---	---	---
3	.53	.61	1.1	---	---	---	---	---	---	---	---	---
4	.53	.56	.68	---	---	---	---	---	---	---	---	---
5	.53	.58	.63	---	---	---	---	---	---	---	---	---
6	.51	.57	5.6	---	---	---	---	---	---	---	---	---
7	.46	.57	3.0	---	---	---	---	---	---	---	---	---
8	.44	.63	2.1	---	---	---	---	---	---	---	---	---
9	.42	.60	9.0	---	---	---	---	---	---	---	---	---
10	.43	.56	16	---	---	---	---	---	---	---	---	---
11	.42	.58	6.6	---	---	---	---	---	---	---	---	---
12	.43	.63	2.5	---	---	---	---	---	---	---	---	---
13	.42	.62	1.7	---	---	---	---	---	---	---	---	---
14	.44	.55	1.4	---	---	---	---	---	---	---	---	---
15	.44	.55	1.3	---	---	---	---	---	---	---	---	---
16	.44	.54	1.1	---	---	---	---	---	---	---	---	---
17	.44	.60	1.4	---	---	---	---	---	---	---	---	---
18	.44	.63	1.3	---	---	---	---	---	---	---	---	---
19	.44	.59	1.2	---	---	---	---	---	---	---	---	---
20	.46	.63	1.1	---	---	---	---	---	---	---	---	---
21	.59	.63	1.1	---	---	---	---	---	---	---	---	---
22	.52	.71	1.1	---	---	---	---	---	---	---	---	---
23	.47	.63	1.1	---	---	---	---	---	---	---	---	---
24	.45	.63	1.1	---	---	---	---	---	---	---	---	---
25	.48	.63	.98	---	---	---	---	---	---	---	---	---
26	.49	.63	.98	---	---	---	---	---	---	---	---	---
27	.49	.63	.98	---	---	---	---	---	---	---	---	---
28	.53	.63	3.4	---	---	---	---	---	---	---	---	---
29	2.9	.63	4.5	---	---	---	---	---	---	---	---	---
30	.97	.63	2.9	---	---	---	---	---	---	---	---	---
31	.67	---	2.1	---	---	---	---	---	---	---	---	---
TOTAL	18.10	18.24	79.39	---	---	---	---	---	---	---	---	---
MEAN	.58	.61	2.56	---	---	---	---	---	---	---	---	---
MAX	2.9	.71	16	---	---	---	---	---	---	---	---	---
MIN	.42	.54	.63	---	---	---	---	---	---	---	---	---
AC-FT	36	36	157	---	---	---	---	---	---	---	---	---

11160020 SAN LORENZO RIVER NEAR BOULDER CREEK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.86	2.71	5.40	14.2	19.5	16.7	8.48	3.26	1.83	1.18	.83	.70
MAX	2.80	12.8	40.6	51.4	81.1	102	56.6	16.7	5.07	3.15	2.16	1.57
(WY)	1990	1984	1984	1969	1986	1983	1982	1983	1983	1983	1983	1983
MIN	.21	.44	.51	.62	.54	.77	.45	.58	.37	.17	.11	.18
(WY)	1978	1989	1977	1977	1977	1977	1977	1977	1977	1977	1977	1988

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		WATER YEARS 1968 - 1993	
ANNUAL TOTAL	979.61			
ANNUAL MEAN	2.68		6.26	
HIGHEST ANNUAL MEAN			23.3	1983
LOWEST ANNUAL MEAN			.43	1977
HIGHEST DAILY MEAN	115	Feb 12	527	Mar 2 1983
LOWEST DAILY MEAN	.37	Sep 20	.08	Aug 2 1977
ANNUAL SEVEN-DAY MINIMUM	.37	Sep 20	.09	Jul 30 1977
INSTANTANEOUS PEAK FLOW			1050	Jan 4 1982
INSTANTANEOUS PEAK STAGE			11.48	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	1940		4540	
10 PERCENT EXCEEDS	4.7		12	
50 PERCENT EXCEEDS	.98		1.3	
90 PERCENT EXCEEDS	.44		.43	

11160060 BEAR CREEK AT BOULDER CREEK, CA

LOCATION.--Lat 37°07'40", long 122°06'57", in NW 1/4 NW 1/4 sec.29, T.9 S., R.2 W., Sante Cruz County, Hydrologic Unit 18060001, on left benk on downstream side of private road bridge in town of Boulder Creek and 0.3 mi upstream from mouth.

DRAINAGE AREA.--16.0 mi^2.

PERIOD OF RECORD.--October 1977 through December 1992 (discontinued).

GAGE.--Water-stege recorder and crest-stage gage. Elevation of gage is 460 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discherges, which ere poor. No regulation; small diversions upstream from station for domestic use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,480 ft^3/s, Jan. 4, 1982, gage height, 13.30 ft, from reting curve extended above 600 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.09 ft^3/s, Sept. 8, 9, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.12	e.40	.78	---	---	---	---	---	---	---	---	---
2	e.12	.37	2.0	---	---	---	---	---	---	---	---	---
3	e.12	.38	2.6	---	---	---	---	---	---	---	---	---
4	e.12	.41	1.0	---	---	---	---	---	---	---	---	---
5	e.12	.37	.67	---	---	---	---	---	---	---	---	---
6	e.12	.37	35	---	---	---	---	---	---	---	---	---
7	e.12	.39	14	---	---	---	---	---	---	---	---	---
8	e.12	.41	7.8	---	---	---	---	---	---	---	---	---
9	e.12	.41	39	---	---	---	---	---	---	---	---	---
10	e.12	.41	64	---	---	---	---	---	---	---	---	---
11	e.12	.41	32	---	---	---	---	---	---	---	---	---
12	e.12	.42	9.7	---	---	---	---	---	---	---	---	---
13	e.12	.45	5.3	---	---	---	---	---	---	---	---	---
14	e.11	.45	3.1	---	---	---	---	---	---	---	---	---
15	e.11	.47	2.2	---	---	---	---	---	---	---	---	---
16	e.10	.48	1.7	---	---	---	---	---	---	---	---	---
17	e.10	.50	2.1	---	---	---	---	---	---	---	---	---
18	e.10	.50	2.0	---	---	---	---	---	---	---	---	---
19	e.11	.53	1.4	---	---	---	---	---	---	---	---	---
20	e.11	.55	1.2	---	---	---	---	---	---	---	---	---
21	e.45	.59	1.1	---	---	---	---	---	---	---	---	---
22	e.33	.75	1.0	---	---	---	---	---	---	---	---	---
23	e.21	.82	.94	---	---	---	---	---	---	---	---	---
24	e.14	.86	.86	---	---	---	---	---	---	---	---	---
25	e.13	.86	.86	---	---	---	---	---	---	---	---	---
26	e.14	.86	.75	---	---	---	---	---	---	---	---	---
27	e.15	.86	.72	---	---	---	---	---	---	---	---	---
28	e.15	.74	25	---	---	---	---	---	---	---	---	---
29	e18	.72	25	---	---	---	---	---	---	---	---	---
30	e4.0	.72	11	---	---	---	---	---	---	---	---	---
31	e.65	---	7.0	---	---	---	---	---	---	---	---	---
TOTAL	26.65	16.46	301.78	---	---	---	---	---	---	---	---	---
MEAN	.86	.55	9.73	---	---	---	---	---	---	---	---	---
MAX	18	.86	64	---	---	---	---	---	---	---	---	---
MIN	.10	.37	.67	---	---	---	---	---	---	---	---	---
AC-FT	53	33	599	---	---	---	---	---	---	---	---	---

e Estimated.

11160060 BEAR CREEK AT BOULDER CREEK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.00	5.21	12.9	35.3	52.6	45.6	27.1	8.18	3.31	1.69	.89	.72
MAX	2.39	22.8	63.8	127	236	226	216	49.6	13.7	6.50	3.67	2.20
(WY)	1983	1984	1984	1978	1986	1983	1982	1983	1983	1983	1983	1982
MIN	.18	.55	1.54	.97	2.01	1.78	2.03	.93	.55	.20	.20	.12
(WY)	1978	1993	1991	1991	1991	1988	1990	1989	1989	1989	1987	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		WATER YEARS 1978 - 1993	
ANNUAL TOTAL	3121.54			
ANNUAL MEAN	8.53			
HIGHEST ANNUAL MEAN			16.1	
LOWEST ANNUAL MEAN			57.9	1983
HIGHEST DAILY MEAN			2.44	1988
LOWEST DAILY MEAN	410	Feb 12	1840	Jan 4 1982
ANNUAL SEVEN-DAY MINIMUM	.10	Aug 22	.09	Sep 8 1988
INSTANTANEOUS PEAK FLOW	.11	Oct 14	.11	Oct 14 1992
INSTANTANEOUS PEAK STAGE			4480	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	6190		13.30	Jan 4 1982
10 PERCENT EXCEEDS	16		11630	
50 PERCENT EXCEEDS	1.1		29	
90 PERCENT EXCEEDS	.12		2.0	
			.32	

11160070 BOULDER CREEK AT BOULDER CREEK, CA

LOCATION.--Lat 37°07'36", long 122°07'18", in NW 1/4 NE 1/4 sec.30, T.9 S., R.2 W., Santa Cruz County, Hydrologic Unit 18060001, on right bank under bridge on State Highway 9 in town of Boulder Creek and 750 ft upstream from mouth.

DRAINAGE AREA.--11.3 mi^2.

PERIOD OF RECORD.--October 1976 through December 1992 (discontinued).
CHEMICAL DATA: Water years 1973-75, 1977.
SEDIMENT DATA: Water years 1976-77.

REVISED RECORDS.--WDR CA-84-2: 1980, 1982-83.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 470 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. No regulation; small diversions upstream from station for domestic use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,500 ft^3/s, Jan. 4, 1982, gage height, 9.50 ft, from rating curve extended above 330 ft^3/s on basis of slope-area measurement at gage height 6.03 ft; minimum daily, 0.35 ft^3/s, Oct. 16, 17, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56	.72	1.7	---	---	---	---	---	---	---	---	---
2	.57	.76	4.3	---	---	---	---	---	---	---	---	---
3	.53	.80	4.0	---	---	---	---	---	---	---	---	---
4	.53	.80	e2.3	---	---	---	---	---	---	---	---	---
5	.50	.72	e1.9	---	---	---	---	---	---	---	---	---
6	.47	.76	48	---	---	---	---	---	---	---	---	---
7	.48	.80	17	---	---	---	---	---	---	---	---	---
8	.44	.84	27	---	---	---	---	---	---	---	---	---
9	.44	.88	88	---	---	---	---	---	---	---	---	---
10	.42	.88	102	---	---	---	---	---	---	---	---	---
11	.42	.97	48	---	---	---	---	---	---	---	---	---
12	.43	.97	19	---	---	---	---	---	---	---	---	---
13	.44	.95	11	---	---	---	---	---	---	---	---	---
14	.44	.88	6.9	---	---	---	---	---	---	---	---	---
15	.52	.88	5.6	---	---	---	---	---	---	---	---	---
16	.43	.88	4.9	---	---	---	---	---	---	---	---	---
17	.42	.88	7.5	---	---	---	---	---	---	---	---	---
18	.42	.93	4.9	---	---	---	---	---	---	---	---	---
19	.42	1.1	4.2	---	---	---	---	---	---	---	---	---
20	.44	1.3	3.7	---	---	---	---	---	---	---	---	---
21	.88	1.3	3.5	---	---	---	---	---	---	---	---	---
22	.54	2.0	3.3	---	---	---	---	---	---	---	---	---
23	.48	1.8	3.3	---	---	---	---	---	---	---	---	---
24	.47	1.7	3.1	---	---	---	---	---	---	---	---	---
25	.47	1.7	3.1	---	---	---	---	---	---	---	---	---
26	.50	1.7	2.9	---	---	---	---	---	---	---	---	---
27	.53	1.7	2.9	---	---	---	---	---	---	---	---	---
28	.53	1.7	30	---	---	---	---	---	---	---	---	---
29	24	1.7	25	---	---	---	---	---	---	---	---	---
30	2.7	1.7	12	---	---	---	---	---	---	---	---	---
31	.89	---	9.9	---	---	---	---	---	---	---	---	---
TOTAL	41.31	34.70	510.9	---	---	---	---	---	---	---	---	---
MEAN	1.33	1.16	16.5	---	---	---	---	---	---	---	---	---
MAX	24	2.0	102	---	---	---	---	---	---	---	---	---
MIN	.42	.72	1.7	---	---	---	---	---	---	---	---	---
AC-FT	82	69	1010	---	---	---	---	---	---	---	---	---

e Estimated.

11160070 BOULDER CREEK AT BOULDER CREEK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.52	6.67	17.2	35.2	51.4	45.4	21.3	7.83	3.52	2.10	1.38	1.14
MAX	3.59	35.8	88.2	133	172	195	124	35.5	9.92	5.27	2.74	1.94
(WY)	1980	1984	1984	1978	1986	1983	1982	1983	1983	1983	1983	1983
MIN	.50	.69	1.38	.96	1.48	2.48	.99	.82	.67	.54	.55	.65
(WY)	1978	1991	1991	1991	1977	1988	1977	1977	1977	1977	1977	1988

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		WATER YEARS 1977 - 1993	
ANNUAL TOTAL	4428.50			
ANNUAL MEAN	12.1		16.1	
HIGHEST ANNUAL MEAN			49.5	1983
LOWEST ANNUAL MEAN			1.20	1977
HIGHEST DAILY MEAN	434	Feb 12	941	Feb 17 1986
LOWEST DAILY MEAN	.42	Oct 10	.35	Oct 16 1977
ANNUAL SEVEN-DAY MINIMUM	.43	Oct 8	.38	Oct 13 1977
INSTANTANEOUS PEAK FLOW			3500	Jan 4 1982
INSTANTANEOUS PEAK STAGE			9.50	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	8780		11650	
10 PERCENT EXCEEDS	26		33	
50 PERCENT EXCEEDS	2.8		2.5	
90 PERCENT EXCEEDS	.72		.80	

11160300 ZAYANTE CREEK AT ZAYANTE, CA

LOCATION.--Lat 37°05'10", long 122°02'45", in SE 1/4 sec.2, T.10 S., R.2 W., Santa Cruz County, Hydrologic Unit 18060001, on left bank at downstream side of bridge on Zayante Road in town of Zayante, 0.4 mi upstream from Lompico Creek, 2.0 mi east of Ben Lomond, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--11.1 mi^2.

PERIOD OF RECORD.--October 1957 through December 1992 (discontinued).
CHEMICAL DATA: Water years 1973-74, 1977.
WATER TEMPERATURE: Water years 1970-73.
SEDIMENT DATA: Water years 1970-73, 1976-77.

GAGE.--Water-stage recorder and bedrock notch low-flow control. Datum of gage is 372.44 ft above sea level. Prior to Oct. 17, 1989, at datum 0.04 ft higher.

REMARKS.--No estimated daily discharges. Records fair. No known regulation; small diversions upstraam from station for individual use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,620 ft^3/s, Jan. 14, 1978, gage height, 8.52 ft, from rating curve extended above 1,200 ft^3/s on basis of slope-area measurement at gage height 7.70 ft; maximum gage height, 8.86 ft, Jan. 4, 1982; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.38	.43	---	---	---	---	---	---	---	---	---
2	.19	.35	.65	---	---	---	---	---	---	---	---	---
3	.15	.30	2.2	---	---	---	---	---	---	---	---	---
4	.13	.28	.76	---	---	---	---	---	---	---	---	---
5	.12	.31	.56	---	---	---	---	---	---	---	---	---
6	.11	.32	7.4	---	---	---	---	---	---	---	---	---
7	.10	.32	11	---	---	---	---	---	---	---	---	---
8	.10	.32	4.9	---	---	---	---	---	---	---	---	---
9	.12	.32	25	---	---	---	---	---	---	---	---	---
10	.14	.32	30	---	---	---	---	---	---	---	---	---
11	.15	.35	18	---	---	---	---	---	---	---	---	---
12	.15	.34	6.6	---	---	---	---	---	---	---	---	---
13	.16	.36	4.1	---	---	---	---	---	---	---	---	---
14	.18	.37	3.1	---	---	---	---	---	---	---	---	---
15	.21	.38	2.6	---	---	---	---	---	---	---	---	---
16	.20	.38	2.3	---	---	---	---	---	---	---	---	---
17	.15	.40	2.7	---	---	---	---	---	---	---	---	---
18	.13	.41	2.3	---	---	---	---	---	---	---	---	---
19	.14	.40	2.0	---	---	---	---	---	---	---	---	---
20	.15	.40	1.9	---	---	---	---	---	---	---	---	---
21	.36	.41	1.8	---	---	---	---	---	---	---	---	---
22	.42	.46	1.8	---	---	---	---	---	---	---	---	---
23	.45	.46	1.7	---	---	---	---	---	---	---	---	---
24	.51	.45	1.6	---	---	---	---	---	---	---	---	---
25	.49	.45	1.6	---	---	---	---	---	---	---	---	---
26	.52	.42	1.5	---	---	---	---	---	---	---	---	---
27	.53	.42	1.5	---	---	---	---	---	---	---	---	---
28	.56	.40	11	---	---	---	---	---	---	---	---	---
29	5.3	.42	11	---	---	---	---	---	---	---	---	---
30	1.6	.43	6.0	---	---	---	---	---	---	---	---	---
31	.61	---	4.5	---	---	---	---	---	---	---	---	---
TOTAL	14.27	11.33	172.50	---	---	---	---	---	---	---	---	---
MEAN	.46	.38	5.56	---	---	---	---	---	---	---	---	---
MAX	5.3	.46	30	---	---	---	---	---	---	---	---	---
MIN	.10	.28	.43	---	---	---	---	---	---	---	---	---
AC-FT	28	22	342	---	---	---	---	---	---	---	---	---

11160300 ZAYANTE CREEK AT ZAYANTE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.29	3.50	8.71	29.9	38.3	27.3	15.2	5.04	2.17	1.22	.76	.75
MAX	15.8	16.4	49.1	136	214	183	100	47.2	8.77	4.59	2.46	5.16
(WY)	1963	1973	1984	1969	1986	1983	1958	1983	1983	1983	1983	1959
MIN	.21	.38	.76	.86	.81	1.03	.51	.52	.18	.060	.021	.091
(WY)	1962	1993	1991	1991	1977	1988	1977	1977	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		WATER YEARS 1958 - 1993	
ANNUAL TOTAL	2154.45			
ANNUAL MEAN	5.89		11.0	
HIGHEST ANNUAL MEAN			43.3	1983
LOWEST ANNUAL MEAN			.61	1977
HIGHEST DAILY MEAN	290	Feb 12	1690	Jan 4 1982
LOWEST DAILY MEAN	.05	Sep 26	.00	Jul 17 1961
ANNUAL SEVEN-DAY MINIMUM	.06	Sep 22	.00	Sep 2 1961
INSTANTANEOUS PEAK FLOW			4620	Jan 14 1978
INSTANTANEOUS PEAK STAGE			8.86	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	4270		8000	
10 PERCENT EXCEEDS	10		17	
50 PERCENT EXCEEDS	1.0		1.5	
90 PERCENT EXCEEDS	.12		.34	

11160430 BEAN CREEK NEAR SCOTTS VALLEY, CA

LOCATION.--Lat 37°03'19", long 122°02'25", in San Augustin Grant, Santa Cruz County, Hydrologic Unit 18060001, on right bank, 0.3 mi downstream from unnamed laft bank tributary, 100 ft northeast of Mt. Harmon Road, 1.2 mi northwast of Scotts Valley Post Office, and 1.8 mi aast of Felton.

DRAINAGE AREA.--8.81 mi^2.

PERIOD OF RECORD.--January 1989 to current yaar.

GAGE.--Water-stage recorder and crast-stage gaga. Elevation of gaga is 320 ft above saa level, from topographic map.

REMARKS.--No estimated daily discharges. Racords fair. No regulation; small diversions upatream from station for domestic use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharga, 1,190 ft^3/s (ravised), Fab. 14, 1992, gage height, 9.29 ft; minimum daily, 0.94 ft^3/s, Jan. 31, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 6	2345	316	6.28	Jan. 20	2030	389	6.56
Jan. 13	0345	494	6.92	Fab. 18	2000	*674	*7.49

Minimum daily, 1.3 ft^3/s, Dec. 5.

REVISIONS.--The maximum discharges for some watar years have baen revisad, as shown in the following table. They supercede figures published in WDR CA-89-2 through CA-92-2.

Water year	Date	Discharge (ft^3/s)	Gage Height (ft)
1989	Mar. 9, 1989	170	5.65
1990	May 28, 1990	86	5.18
1991	Mar. 24, 1991	538	7.10
1992	Feb. 14, 1992	1,190	9.29

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.7	2.1	55	17	55	15	4.7	3.3	2.5	2.2	2.4
2	1.6	1.7	4.0	29	12	49	13	4.5	3.2	2.5	2.3	2.3
3	1.6	1.7	1.6	18	17	43	12	4.8	3.1	2.5	2.2	2.3
4	1.6	1.8	1.5	16	16	41	11	4.7	6.0	2.6	2.3	2.3
5	1.6	1.8	1.3	16	20	41	10	4.4	4.1	2.6	2.2	2.3
6	1.6	1.8	16	54	14	34	9.4	4.2	3.7	2.6	2.2	2.3
7	1.6	1.8	13	129	20	32	8.8	4.1	3.3	2.6	2.2	2.3
8	1.6	1.9	9.6	71	20	27	8.3	4.1	3.2	2.6	2.2	2.3
9	1.6	1.9	37	44	20	27	7.7	4.0	3.0	2.5	2.2	2.3
10	1.6	1.9	43	38	23	24	7.4	4.0	3.0	2.5	2.2	2.3
11	1.7	1.9	33	31	31	19	7.0	4.0	2.9	2.5	2.3	2.3
12	1.7	1.9	19	75	22	15	6.7	3.9	3.0	2.4	2.3	2.3
13	1.8	2.0	14	276	20	14	6.3	3.8	2.9	2.4	2.3	2.4
14	1.8	2.2	13	103	21	13	6.2	3.7	2.8	2.2	2.3	2.3
15	1.8	2.1	10	80	26	11	6.2	3.7	2.9	2.2	2.3	2.3
16	1.8	2.2	7.9	85	25	10	6.1	3.6	2.9	2.2	2.3	2.3
17	1.8	2.2	9.3	133	57	19	20	3.4	2.8	2.2	2.3	2.3
18	1.8	2.1	6.8	148	195	11	8.6	3.3	2.9	2.2	2.3	2.3
19	1.7	2.1	6.4	79	226	10	6.9	3.4	2.8	2.3	2.3	2.2
20	1.6	2.1	6.2	236	107	9.2	6.5	3.4	2.6	2.2	2.1	2.2
21	1.8	2.2	6.1	187	67	9.1	6.1	3.3	2.5	2.2	2.2	2.2
22	1.6	2.2	6.3	140	58	8.8	5.9	3.2	2.6	2.3	2.3	2.2
23	1.6	1.9	6.3	80	72	14	5.9	3.3	2.7	2.2	2.3	2.2
24	1.6	1.9	6.7	87	63	18	5.7	5.1	2.6	2.2	2.4	2.2
25	1.7	1.9	7.6	55	62	15	5.5	4.4	2.6	2.2	2.3	2.1
26	1.7	1.9	6.7	47	96	28	5.2	3.7	2.6	2.2	2.3	2.1
27	1.8	2.0	6.3	52	69	24	5.2	3.7	2.6	2.2	2.4	2.2
28	1.8	2.1	23	37	64	24	5.0	3.5	2.6	2.2	2.3	2.1
29	15	2.0	22	30	---	20	4.8	3.4	2.5	2.0	2.4	2.2
30	2.1	2.0	17	28	---	17	4.8	3.3	2.6	2.1	2.5	2.2
31	1.7	---	13	24	---	17	---	3.8	---	2.0	2.3	---
TOTAL	65.9	58.9	375.7	2483	1460	699.1	237.2	120.4	90.3	72.1	70.7	67.7
MEAN	2.13	1.96	12.1	80.1	52.1	22.6	7.91	3.88	3.01	2.33	2.28	2.26
MAX	15	2.2	43	276	226	55	20	5.1	6.0	2.6	2.5	2.4
MIN	1.6	1.7	1.3	16	12	8.8	4.8	3.2	2.5	2.0	2.1	2.1
AC-FT	131	117	745	4930	2900	1390	470	239	179	143	140	134

11160430 BEAN CREEK NEAR SCOTTS VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.39	2.57	5.37	22.3	23.1	17.7	4.62	2.80	2.37	2.04	1.97	1.97
MAX	2.98	4.10	12.1	80.1	52.1	32.0	7.91	3.88	3.01	2.33	2.28	2.26
(WY)	1990	1990	1993	1993	1993	1991	1993	1993	1993	1993	1993	1993
MIN	1.96	1.96	2.16	2.11	2.42	3.92	2.62	2.33	1.96	1.71	1.84	1.76
(WY)	1991	1993	1991	1991	1991	1990	1990	1989	1991	1991	1989	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1989 - 1993	
ANNUAL TOTAL	2964.27		5801.0			
ANNUAL MEAN	8.10		15.9		7.79	
HIGHEST ANNUAL MEAN					15.9	1993
LOWEST ANNUAL MEAN					3.00	1990
HIGHEST DAILY MEAN	256	Feb 14	276	Jan 13	276	Jan 13 1993
LOWEST DAILY MEAN	.94	Jan 31	1.3	Dec 5	.94	Jan 31 1992
ANNUAL SEVEN-DAY MINIMUM	1.0	Jan 21	1.6	Oct 1	1.0	Jan 21 1992
INSTANTANEOUS PEAK FLOW			674	Feb 18	1190	Feb 14 1992
INSTANTANEOUS PEAK STAGE			7.49	Feb 18	9.29	Feb 14 1992
ANNUAL RUNOFF (AC-FT)	5880		11510		5640	
10 PERCENT EXCEEDS	15		43		12	
50 PERCENT EXCEEDS	2.3		3.3		2.3	
90 PERCENT EXCEEDS	1.6		1.8		1.8	

11160500 SAN LORENZO RIVER AT BIG TREES, CA

LOCATION.--Lat 37°02'40", long 122°04'17", in Zayante Grant, Santa Cruz County, Hydrologic Unit 18060001, on right bank 20 ft upatream from bridge on Henry Cowall State Park Road, 200 ft upstream from Shingle Mill Creek, 0.3 mi downstream from Zayante Creek, 0.9 mi northwest of Big Traas Station on Southern Pacific Railroad, and 5.3 mi northwest of Santa Cruz.

DRAINAGE AREA.--106 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1936 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1315-B: 1938(M). WSP 1715: Drainage area.

GAGE.--Water-staga recordar and creat-stage gage. Datum of gage is 227.00 ft abova saa level. Prior to Oct. 6, 1972, at site 1.3 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good except for daily discharges from Oct. 1 to Jan. 13, which are fair. Low flow partially regulated by Loch Lomond Reservoir since 1961, capacity, 8,820 acre-ft, and by a fiber dam located 500 ft upstream from gage. Many small diversions upstream from station for domestic supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,400 ft^3/s, Dec. 23, 1955, gage height, 22.55 ft, site and datum then in use, from rating curve extended above 11,000 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 28.85 ft, Jan. 5, 1982; minimum daily discharga, 5.6 ft^3/s, July 27, 28, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	0100	2,090	8.74	Feb. 18	2200	3,920	11.13
Jan. 13	0700	*6,430	*13.64	Feb. 26	0545	2,350	9.14
Jan. 20	2045	4,270	11.52				

Minimum daily, 8.9 ft^3/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	14	11	494	170	498	158	62	48	27	22	17
2	9.3	13	23	205	147	438	135	61	43	28	21	17
3	9.4	12	38	111	138	395	127	64	41	27	21	17
4	10	12	15	79	130	346	125	68	57	28	21	17
5	10	12	11	63	175	314	117	64	68	28	21	17
6	10	11	219	228	129	292	112	63	56	27	20	17
7	10	11	148	1230	152	271	108	63	52	27	20	17
8	11	11	90	585	279	249	106	64	48	27	20	19
9	11	11	395	322	254	226	105	61	45	26	21	16
10	11	11	394	287	215	213	99	57	42	26	21	15
11	13	11	313	194	386	202	96	57	42	26	21	15
12	13	12	111	369	254	189	93	57	40	26	21	15
13	12	12	71	3540	205	181	89	56	39	26	20	16
14	12	12	50	1320	184	175	88	55	38	25	20	17
15	13	12	36	769	164	162	85	53	36	24	21	17
16	13	12	32	746	160	156	83	51	37	24	21	17
17	13	12	38	1030	611	202	158	51	36	24	20	17
18	12	12	32	1320	1460	163	122	48	34	24	20	16
19	11	12	27	650	2360	148	94	49	33	23	19	15
20	11	12	27	2250	1540	140	87	49	33	22	19	15
21	15	13	26	1790	807	133	81	48	33	23	19	15
22	14	14	28	1560	639	127	78	47	33	22	18	15
23	13	12	31	747	801	145	76	46	32	23	19	15
24	12	11	31	541	709	210	78	51	31	23	18	14
25	13	11	30	421	587	157	75	62	30	24	17	14
26	13	11	29	346	1480	236	72	55	29	25	16	14
27	12	11	28	293	763	196	70	64	29	25	16	13
28	10	11	147	258	588	188	68	50	30	24	16	13
29	160	11	168	234	---	161	65	46	29	24	16	14
30	51	11	92	211	---	150	63	45	27	23	17	14
31	20	---	68	188	---	144	---	56	---	22	17	---
TOTAL	556.6	353	2759	22381	15487	6807	2913	1723	1171	773	599	470
MEAN	18.0	11.8	89.0	722	553	220	97.1	55.6	39.0	24.9	19.3	15.7
MAX	160	14	395	3540	2360	498	158	68	68	28	22	19
MIN	8.9	11	11	63	129	127	63	45	27	22	16	13
AC-FT	1100	700	5470	44390	30720	13500	5780	3420	2320	1530	1190	932

11160500 SAN LORENZO RIVER AT BIG TREES, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	23.4	54.9	153	306	389	295	179	70.1	39.7	26.1	19.7	18.0
MAX	176	461	1319	1242	1532	1483	1005	322	112	65.8	44.0	52.1
(WY)	1963	1951	1956	1952	1986	1983	1958	1983	1983	1983	1983	1959
MIN	8.26	11.4	14.7	13.8	16.6	21.4	12.3	11.6	9.37	6.66	6.50	8.28
(WY)	1978	1991	1991	1991	1977	1977	1977	1977	1977	1977	1977	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1937 - 1993	
ANNUAL TOTAL	25928.5		55992.6			
ANNUAL MEAN	70.8		153		130	
HIGHEST ANNUAL MEAN					391	1983
LOWEST ANNUAL MEAN					13.2	1977
HIGHEST DAILY MEAN	2960	Feb 12	3540	Jan 13	17000	Dec 23 1955
LOWEST DAILY MEAN	7.9	Sep 26	8.9	Oct 1	5.6	Jul 27 1977
ANNUAL SEVEN-DAY MINIMUM	8.1	Sep 24	9.7	Oct 1	5.8	Jul 26 1977
INSTANTANEOUS PEAK FLOW			6430	Jan 13	30400	Dec 23 1955
INSTANTANEOUS PEAK STAGE			13.64	Jan 13	28.85	Jan 5 1982
ANNUAL RUNOFF (AC-FT)	51430		111100		94030	
10 PERCENT EXCEEDS	147		346		267	
50 PERCENT EXCEEDS	19		37		32	
90 PERCENT EXCEEDS	9.5		12		13	

11160500 SAN LORENZO RIVER AT BIG TREES, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1906-07, 1952-82, 1986, November 1989 to May 1993 (discontinued).
CHEMICAL DATA: Water years 1906-07, 1952-67, 1969-70, 1973-75, 1977, 1980-81.
WATER TEMPERATURE: Water years 1966-82.
SEDIMENT DATA: Water years 1973-82, 1986, November 1989 to May 1993 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: May 1966 to February 1979.
SUSPENDED-SEDIMENT DISCHARGE: October 1972 to September 1982.

REMARKS.--Zero bedload discharge observed for flows less than 175 ft^3/s during current year. Sediment loads at times affected by fiber dam upstream.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV								
03...	1230	12	15.5	6	0.19	--	--	--
DEC								
01...	1445	11	8.5	4	0.12	--	--	--
09...	1305	545	12.5	448	659	--	--	--
JAN								
04...	1405	73	5.5	12	2.4	--	--	--
13...	1440	2860	12.0	1620	12500	14	19	27
FEB								
01...	1150	175	9.0	32	15	--	--	--
MAR								
02...	1505	431	10.0	28	33	--	--	--
APR								
02...	1415	136	12.5	7	2.6	--	--	--
MAY								
04...	1430	66	15.0	3	0.53	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
NOV								
03...	--	--	78	--	--	--	--	--
DEC								
01...	--	--	59	--	--	--	--	--
09...	--	--	26	30	44	95	100	--
JAN								
04...	--	--	58	--	--	--	--	--
13...	35	46	56	68	79	92	99	100
FEB								
01...	--	--	84	--	--	--	--	--
MAR								
02...	--	--	69	--	--	--	--	--
APR								
02...	--	--	86	--	--	--	--	--
MAY								
04...	--	--	84	--	--	--	--	--

11160500 SAN LORENZO RIVER AT BIG TREES, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM
NOV								
03...	1512	1	12	15.5	7	31	76	97
03...	1515	1	12	15.5	1	6	14	28
03...	1520	1	12	15.5	1	5	67	93
03...	1525	1	12	15.5	1	3	34	62
03...	1530	1	12	15.5	1	2	6	8
03...	1543	1	12	15.5	1	1	4	6
03...	1545	1	12	15.5	2	8	24	44
JAN								
04...	1428	1	73	5.5	8	30	74	95
04...	1430	1	73	5.5	--	--	--	12
04...	1433	1	73	5.5	--	--	1	16
04...	1438	1	73	5.5	--	--	--	4
04...	1443	1	73	5.5	--	--	--	4
04...	1445	1	73	5.5	--	--	--	3
04...	1449	1	73	5.5	3	8	30	66
MAY								
04...	1455	1	66	15.0	8	31	64	94
04...	1456	1	66	15.0	1	4	15	22
04...	1457	1	66	15.0	--	1	7	24
04...	1458	1	66	15.0	--	--	1	6
04...	1459	1	66	15.0	--	--	2	8
04...	1500	1	66	15.0	1	2	6	9
04...	1501	1	66	15.0	1	3	19	57

DATE	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
NOV								
03...	100	--	--	--	--	--	--	--
03...	53	76	88	95	98	100	--	--
03...	97	98	99	100	--	--	--	--
03...	77	85	90	92	96	100	--	--
03...	10	13	18	26	39	82	100	--
03...	10	20	29	38	52	76	100	--
03...	57	70	83	91	96	100	--	--
JAN								
04...	99	99	100	--	--	--	--	--
04...	52	83	96	99	100	--	--	--
04...	60	80	88	94	99	100	--	--
04...	21	46	64	76	85	88	100	--
04...	20	34	48	65	84	100	--	--
04...	19	43	62	80	90	100	--	--
04...	92	98	99	100	--	--	--	--
MAY								
04...	100	--	--	--	--	--	--	--
04...	39	83	99	100	--	--	--	--
04...	35	48	64	82	92	100	--	--
04...	19	30	42	53	66	76	79	100
04...	26	40	55	72	82	100	--	--
04...	18	50	73	89	98	100	--	--
04...	79	91	96	99	100	--	--	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
JAN									
13...	1605	1000	1140	0.250	0	1550	1620	10	4.0
MAR									
02...	1210	1000	1100	0.250	0	1200	1225	20	2.0
02...	1305	1000	1100	0.250	0	1246	1326	20	2.0

11160500 SAN LORENZO RIVER AT BIG TREES, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VER-TICALS IN COM-POSITE SAMPLE (NUM)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
JAN									
13...	1	21	21	14.0	3240	12.0	2.39	201	1
MAR									
02...	2	29	29	5.00	441	10.0	2.89	170	--
02...	2	29	29	5.00	441	10.0	2.97	170	--

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
JAN									
13...	6	34	64	77	83	86	90	96	100
MAR									
02...	1	11	43	74	89	96	98	100	--
02...	1	9	37	69	87	95	99	100	--

11161000 SAN LORENZO RIVER AT SANTA CRUZ, CA

LOCATION.--Lat 36°59'27", long 122°01'51", in La Carbonera Grant, Santa Cruz County, Hydrologic Unit 18060001, on right bank, in city of Santa Cruz Water Meter Repair compound, 0.3 mi upstream from intersection of State Highways 1 and 9, 1.0 mi north of Santa Cruz, and 2.4 mi upstream from mouth.

DRAINAGE AREA.--115 mi^2.

PERIOD OF RECORD.--October 1952 to September 1960, October 1987 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 5.84 ft (revised) above sea level (levels by city of Santa Cruz Water Department). October 1952 to September 1960, water-stage recorder at site 0.1 mi downstream at different datum.

REMARKS.--Records fair. Low flow partially regulated by Loch Lomond Reservoir since 1961, capacity, 8,820 acre-ft, and by a fiber dam located 6.8 mi upstream from gage. Water is diverted 50 ft upstream from station by city of Santa Cruz for municipal supply; many small diversions upstream from station for domestic supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,400 ft^3/s, Dec. 23, 1955, gage height, 23.10 ft, site and datum then in use, from rating curve extended above 4,500 ft^3/s on basis of slope-area measurement of peak flow; no flow for several days in 1955 and many days in 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maximum (*), from rating curve extended above 2,500 ft^3/s by comparison to station at Big Trees:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	0300	2,190	9.02	Jan. 20	2230	4,900	11.34
Jan. 13	0800	*7,070	*12.57	Feb. 18	2245	4,420	11.01
				Feb. 26	0700	2,550	9.40

Minimum daily, 0.28 ft^3/s, Oct. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	18	4.5	436	192	599	e165	72	45	21	13	9.4
2	3.1	10	8.0	223	180	486	e152	69	40	21	13	9.2
3	3.4	8.1	47	126	174	430	145	70	38	22	12	e9.2
4	3.0	5.0	20	88	169	367	141	71	50	22	12	e9.1
5	2.3	2.6	8.5	65	193	326	138	67	65	21	12	e9.0
6	2.0	4.1	150	135	167	300	136	67	52	22	12	e8.9
7	.46	2.6	207	1320	170	279	132	65	49	21	12	e8.8
8	1.5	2.6	80	587	265	258	130	63	46	20	11	e8.7
9	1.5	3.2	379	287	242	240	129	61	43	21	12	e8.6
10	1.4	3.0	332	257	224	224	125	58	40	21	11	e8.5
11	.30	2.4	358	187	319	212	122	58	38	21	11	e8.4
12	.54	2.8	117	261	242	202	120	57	37	21	12	e8.3
13	.28	3.5	83	3820	209	191	117	56	36	20	11	e8.2
14	1.5	3.3	53	1520	198	183	116	54	35	20	11	e8.1
15	.75	3.2	26	700	186	173	114	53	33	18	11	e8.0
16	1.8	3.5	22	806	180	168	111	50	33	18	12	e7.9
17	2.6	5.8	27	1100	518	214	166	49	33	17	11	e7.8
18	2.8	3.1	24	1620	1510	178	141	47	31	18	11	7.7
19	2.4	2.8	19	677	2690	159	104	48	29	17	10	8.1
20	1.1	4.3	17	2430	1710	154	97	46	29	17	10	7.4
21	3.9	3.8	18	2180	964	148	94	45	29	17	10	7.5
22	2.6	4.0	17	1870	755	145	89	42	28	16	10	7.4
23	1.6	4.8	26	740	932	155	91	41	27	16	10	7.4
24	1.7	3.8	25	465	848	227	91	44	26	15	9.9	7.4
25	1.7	3.5	27	366	678	170	85	58	25	16	9.5	6.9
26	2.1	3.6	27	308	1640	246	82	47	25	16	9.3	7.1
27	2.7	3.8	26	272	1000	202	79	57	25	16	9.5	6.6
28	2.6	2.8	107	249	746	199	77	48	24	16	9.1	6.4
29	161	4.3	179	235	---	173	74	44	23	15	9.0	6.9
30	85	5.1	110	219	---	e164	73	42	22	14	9.2	6.6
31	31	---	79	205	---	e157	---	48	---	14	9.3	---
TOTAL	330.83	133.4	2623.0	23754	17301	7329	3436	1697	1056	570	334.8	239.5
MEAN	10.7	4.45	84.6	766	618	236	115	54.7	35.2	18.4	10.8	7.98
MAX	161	18	379	3820	2690	599	166	72	65	22	13	9.4
MIN	.28	2.4	4.5	65	167	145	73	41	22	14	9.0	6.4
AC-FT	656	265	5200	47120	34320	14540	6820	3370	2090	1130	664	475

e Estimated.

11161000 SAN LORENZO RIVER AT SANTA CRUZ, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.4	21.1	171	226	294	180	135	54.6	26.5	13.2	7.65	8.75
MAX	28.9	38.8	1366	822	1254	728	1017	138	70.0	45.0	30.0	40.4
(WY)	1990	1955	1956	1956	1958	1958	1958	1958	1958	1958	1958	1959
MIN	1.83	3.45	7.30	5.60	15.3	16.8	15.9	13.7	4.64	1.48	.27	.17
(WY)	1989	1991	1991	1991	1991	1988	1990	1988	1988	1988	1960	1960

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1953 - 1993	
ANNUAL TOTAL	24949.05		58804.53			
ANNUAL MEAN	68.2		161		94.9	
HIGHEST ANNUAL MEAN					293	1958
LOWEST ANNUAL MEAN					21.5	1988
HIGHEST DAILY MEAN	3390	Feb 12	3820	Jan 13	17400	Dec 23 1955
LOWEST DAILY MEAN	.28	Oct 13	.28	Oct 13	.00	Sep 3 1955
ANNUAL SEVEN-DAY MINIMUM	.79	Sep 15	.85	Oct 7	.00	Sep 20 1960
INSTANTANEOUS PEAK FLOW			7070	Jan 13	30400	Dec 23 1955
INSTANTANEOUS PEAK STAGE			12.57	Jan 13	23.10	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	49490		116600		68770	
10 PERCENT EXCEEDS	139		322		190	
50 PERCENT EXCEEDS	14		33		20	
90 PERCENT EXCEEDS	1.7		3.2		2.0	

11161300 CARBONERA CREEK AT SCOTTS VALLEY, CA

LOCATION.--Lat 37°03'02", long 122°00'45" in San Augustin Grant, Santa Cruz County, Hydrologic Unit 18060001, on right bank at east city limits of Scotts Valley, 1.1 mi upstream from Glen Canyon Road, 3.3 mi east of Felton, and 4.1 mi upstream from Branciforte Creek.

DRAINAGE AREA.--3.60 mi^2.

PERIOD OF RECORD.--February 1985 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 550 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Low flows effected by return flow from urban irrigation and by periodic flushing of upstream county well.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,090 ft^3/s, Feb. 14, 1992, gage height, 10.05 ft, from rating curve extended above 330 ft^3/s on basis of slope-area measurement at gage-height 9.48 ft; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 6	2145	559	7.81	Feb. 18	1815	*695	*8.43

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	e.19	e.05	66	4.5	8.6	e2.4	.74	.49	e.06	e.06	e.05
2	.20	e.14	e.50	12	4.5	7.3	e2.2	.69	.35	e.06	e.06	e.09
3	.02	e.11	e.10	6.7	4.1	6.6	e2.0	1.1	.34	e.07	e.06	.13
4	.00	e.09	e.10	4.7	3.8	5.4	e1.9	.99	4.1	e.08	e.06	.05
5	.00	e.09	e.10	3.4	10	4.7	e1.8	.77	1.1	e.09	e.14	.03
6	.00	e.08	e10	79	4.4	4.4	e1.7	.70	.64	e.09	e.07	.07
7	.00	e.08	e20	82	11	4.3	e1.6	.71	.39	e.12	e.06	e.02
8	.00	e.07	17	28	11	3.7	e1.6	.63	.33	e.10	e.06	e.01
9	.00	e.07	34	21	11	3.5	e1.5	.60	.29	e.12	e.06	e.02
10	.00	e.07	37	17	9.5	3.3	e1.4	.59	.24	e.13	e.06	e.18
11	.00	e.06	13	12	22	2.8	e1.4	.68	.26	e.12	e.05	e.01
12	.00	e.06	4.4	85	9.2	e2.3	e1.3	.61	.23	e.13	e.05	e.01
13	.00	.07	2.8	163	7.2	e2.1	e1.3	.55	.20	.17	e.05	e.01
14	.00	.06	2.0	40	6.1	e2.4	e1.2	.56	.20	e.13	e.05	e.04
15	.00	.06	1.4	41	5.3	e2.0	e1.2	.50	.19	e.10	e.05	.10
16	.00	.11	1.1	23	5.9	e1.9	e1.4	.49	.18	e.14	e.07	.10
17	.00	.12	4.5	102	39	7.9	e7.8	.46	.16	e.09	e.07	.07
18	.00	.12	1.2	63	135	e2.8	e2.3	.54	.20	e.09	e.05	.10
19	.00	.17	.92	21	68	e2.4	e1.5	.59	.14	e.09	e.04	.06
20	.04	.09	.83	172	25	e2.3	e1.3	.60	.15	e.09	e.04	.04
21	2.3	.04	.75	82	14	e2.2	e1.2	.47	e.12	e.09	e.04	.05
22	.17	1.1	.67	42	14	e1.9	e1.1	.86	e.10	e.07	e.03	.07
23	.10	.12	.67	19	20	e3.5	e1.1	.95	e.10	e.07	e.03	.06
24	.00	.04	.67	13	12	e7.0	1.4	4.4	e.10	e.07	e.03	.09
25	.08	.04	.66	11	18	e5.6	1.0	1.1	e.08	e.07	e.03	.04
26	.11	e.04	.59	9.3	41	e12	.95	.96	e.08	e.07	e.03	e.02
27	.30	e.04	.70	7.9	15	e10	1.0	.79	e.07	e.08	e.03	e.01
28	.45	e.04	28	6.8	11	e6.0	.88	.52	e.07	e.08	e.03	.01
29	e10	e.04	17	6.0	---	e3.5	.77	.49	e.07	e.07	e.03	e.00
30	e1.0	e.04	6.7	5.4	---	e2.4	.76	.45	e.06	e.07	e.03	e.01
31	e.25	---	4.3	5.0	---	e2.7	---	1.5	---	e.07	e.10	---
TOTAL	15.02	3.45	211.71	1249.2	541.5	137.5	48.96	25.59	11.03	2.88	1.62	1.55
MEAN	.48	.11	6.83	40.3	19.3	4.44	1.63	.83	.37	.093	.052	.052
MAX	10	1.1	37	172	135	12	7.8	4.4	4.1	.17	.14	.18
MIN	.00	.04	.05	3.4	3.8	1.9	.76	.45	.06	.06	.03	.00
AC-FT	30	6.8	420	2480	1070	273	97	51	22	5.7	3.2	3.1

e Estimated.

11161300 CARBONERA CREEK AT SCOTTS VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.70	1.55	4.71	8.95	16.5	11.2	1.14	.71	.18	.051	.13	.18
MAX	3.01	4.86	10.9	40.3	63.9	32.0	1.89	3.22	.37	.21	.91	.68
(WY)	1990	1989	1989	1993	1986	1986	1986	1990	1993	1989	1989	1989
MIN	.039	.002	.51	.35	.95	.25	.41	.099	.002	.005	.000	.000
(WY)	1987	1987	1987	1991	1988	1988	1987	1987	1987	1990	1985	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1985 - 1993	
ANNUAL TOTAL	1303.37		2250.01			
ANNUAL MEAN	3.56		6.16		3.80	
HIGHEST ANNUAL MEAN					10.1	1986
LOWEST ANNUAL MEAN					1.33	1990
HIGHEST DAILY MEAN	199	Feb 14	172	Jan 20	352	Feb 17 1986
LOWEST DAILY MEAN	.00	Jun 8	.00	Oct 1	.00	Jun 28 1985
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 18	.00	Oct 4	.00	Jun 28 1985
INSTANTANEOUS PEAK FLOW			695	Feb 18	1090	Feb 14 1992
INSTANTANEOUS PEAK STAGE			8.43	Feb 18	10.05	Feb 14 1992
ANNUAL RUNOFF (AC-FT)	2590		4460		2750	
10 PERCENT EXCEEDS	4.5		13		4.9	
50 PERCENT EXCEEDS	.16		.49		.24	
90 PERCENT EXCEEDS	.00		.03		.00	

11162500 PESCADERO CREEK NEAR PESCADERO, CA

LOCATION.--Lat 37°15'39", long 122°19'40", in SW 1/4 sec.5, T.8 S., R.4 W., San Mateo County, Hydrologic Unit 18050006, on left bank at downstream side of highway bridge, 3.0 mi east of Pescadero, and 5.3 mi upstream from mouth.

DRAINAGE AREA.--45.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1951 to current year.

REVISED RECORDS.--WSP 1445: 1952-53(M). WSP 1715: Dralnage area.

GAGE.--Water-stage recordar and crest-stage gage. Datum of gage is 62.3 ft above aea level.

REMARKS.--Records fair except for those for estimated daily discharges and for May 11 to June 11 and July 28 to Sept. 2, which are poor. Minor regulation from swimming pools in San Mateo County Memorial Park and Portola State Park during summer months. Small diversions upstream from station by pumping.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,420 ft^3/s, Dec. 23, 1955, gage height, 21.27 ft, from rating curve extended above 2,700 ft^3/s on basis of slope-area measurement of peak flow; no flow at timea.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/a)	Gage height (ft)
Jan. 13	0815	*5,060	*15.33	Feb. 19	2400	1,800	9.04
Jan. 20	2245	1,800	9.03	Feb. 26	0630	892	6.95

Minimum daily, 0.60 ft^3/a, Oct. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.67	1.1	2.8	207	13	192	69	17	12	6.4	3.5	3.3
2	e.65	.91	4.2	109	9.8	164	62	16	10	6.1	3.4	e2.6
3	e.65	1.1	11	55	7.7	140	59	16	9.7	6.1	3.2	e2.8
4	e.64	1.2	8.8	37	6.1	117	55	17	11	6.1	2.9	2.7
5	e.64	1.2	5.3	28	5.5	104	53	15	17	6.1	3.2	2.6
6	e.64	1.4	24	28	3.9	95	51	14	15	6.1	3.3	2.6
7	e.63	1.5	48	315	4.3	88	48	14	13	6.1	4.4	2.7
8	e.62	1.5	11	244	14	82	43	14	12	5.8	3.8	2.8
9	e.62	1.5	41	129	37	76	44	13	9.3	5.8	3.5	2.8
10	e.62	1.9	89	98	22	73	43	13	10	5.7	4.4	3.0
11	e.61	1.6	111	72	22	69	41	13	10	5.4	3.9	3.0
12	e.61	1.5	40	60	16	65	39	11	9.6	5.3	3.6	3.1
13	e.60	1.5	22	2460	12	62	38	11	9.2	5.1	3.8	3.2
14	.63	1.5	15	930	7.5	60	37	12	9.1	5.1	3.5	3.0
15	.61	1.5	10	300	6.2	56	37	12	8.7	5.1	3.1	3.0
16	.72	1.5	7.9	290	4.5	54	34	11	8.7	5.1	3.1	3.0
17	.74	1.6	9.9	322	11	54	38	11	8.6	5.1	3.5	3.0
18	.81	1.7	14	441	138	e51	40	11	7.9	4.8	2.6	3.0
19	.86	2.1	8.9	241	844	e47	31	11	7.9	4.2	2.5	e2.9
20	.97	2.2	7.0	575	924	e42	28	11	7.4	4.4	2.7	e2.9
21	1.1	2.3	6.1	666	370	e40	26	11	7.2	4.5	2.6	e2.9
22	1.3	2.7	5.5	590	273	e37	24	11	7.1	4.2	2.7	e2.8
23	1.6	2.8	5.0	250	355	e45	24	10	6.8	4.3	2.1	e2.8
24	1.4	3.0	4.5	156	333	76	25	12	6.8	4.5	2.0	e2.8
25	1.1	3.0	4.2	108	229	63	22	13	6.4	4.4	2.6	e2.7
26	.96	2.7	3.5	75	517	93	21	13	6.4	4.2	2.7	e2.7
27	1.0	2.6	3.5	56	306	84	20	19	6.4	4.2	2.6	e2.7
28	1.0	2.6	23	42	235	88	19	15	6.4	4.3	2.8	e2.7
29	8.0	2.6	89	30	---	78	18	12	6.4	3.8	2.5	e2.6
30	12	2.7	75	25	---	71	18	11	6.4	3.8	2.8	e2.6
31	1.9	---	51	18	---	67	---	13	---	3.6	3.2	---
TOTAL	44.90	57.01	761.1	8957	4726.5	2433	1107	403	272.4	155.7	96.5	85.3
MEAN	1.45	1.90	24.6	289	169	78.5	36.9	13.0	9.08	5.02	3.11	2.84
MAX	12	3.0	111	2460	924	192	69	19	17	6.4	4.4	3.3
MIN	.60	.91	2.8	18	3.9	37	18	10	6.4	3.6	2.0	2.6
AC-FT	89	113	1510	17770	9380	4830	2200	799	540	309	191	169

e Estimated.

11162500 PESCADERO CREEK NEAR PESCADERO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.73	13.8	59.2	112	116	91.1	56.3	17.7	8.29	4.67	3.25	2.52
MAX	92.8	85.9	469	418	476	540	398	93.8	28.1	14.8	10.5	7.79
(WY)	1963	1984	1956	1952	1983	1983	1958	1983	1983	1983	1969	1983
MIN	.38	1.61	2.30	2.75	2.92	4.25	1.93	2.00	.78	.20	.012	.083
(WY)	1962	1992	1977	1991	1977	1988	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1951 - 1993	
ANNUAL TOTAL	10224.61		19099.41			
ANNUAL MEAN	27.9		52.3		40.6	
HIGHEST ANNUAL MEAN					164	1983
LOWEST ANNUAL MEAN					1.72	1977
HIGHEST DAILY MEAN	1650	Feb 12	2460	Jan 13	5560	Dec 23 1955
LOWEST DAILY MEAN	.55	Sep 17	.60	Oct 13	.00	Sep 9 1961
ANNUAL SEVEN-DAY MINIMUM	.60	Sep 24	.61	Oct 9	.00	Aug 17 1977
INSTANTANEOUS PEAK FLOW			5060	Jan 13	9420	Dec 23 1955
INSTANTANEOUS PEAK STAGE			15.33	Jan 13	21.27	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	20280		37880		29400	
10 PERCENT EXCEEDS	56		96		84	
50 PERCENT EXCEEDS	3.6		7.9		6.6	
90 PERCENT EXCEEDS	.75		1.5		1.3	

11162500 PESCADERO CREEK NEAR PESCADERO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-80, 1986, December 1989 to May 1993 (discontinued).
CHEMICAL DATA: Water year 1977.
WATER TEMPERATURE: Water years 1965-80.
SEDIMENT DATA: Water years 1971, 1973, 1980, 1986, December 1989 to May 1993 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April 1965 to February 1979.
SUSPENDED-SEDIMENT DISCHARGE: December 1979 to September 1980.

REMARKS.--Zero bedload discharge observed for flows less than 15 ft^3/s during current year.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
NOV											
18...	1320	1.7	10.5	3	0.01	64	--	--	--	--	--
DEC											
11...	1240	82	11.5	179	40	78	80	92	100	--	--
14...	1320	15	7.5	11	0.45	88	--	--	--	--	--
JAN											
14...	1500	685	10.5	1280	2370	56	67	81	93	98	100
FEB											
19...	1655	631	11.5	691	1180	78	84	92	98	100	--
MAR											
17...	1420	55	13.5	15	2.2	87	--	--	--	--	--
MAY											
11...	1450	14	14.0	8	0.30	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM
NOV								
18...	1335	1	1.7	10.5	6	20	46	73
18...	1340	1	1.7	10.5	1	2	5	16
18...	1343	1	1.7	10.5	2	5	9	24
18...	1346	1	1.7	10.5	1	3	8	20
18...	1351	1	1.7	10.5	1	2	5	16
18...	1356	1	1.7	10.5	1	3	7	16
MAR								
17...	1543	1	58	13.5	--	1	3	14
17...	1546	1	58	13.5	--	1	4	10
17...	1549	1	58	13.5	--	--	2	17
17...	1553	1	58	13.5	--	--	3	31
17...	1557	1	58	13.5	--	1	11	62
17...	1606	1	58	13.5	--	1	14	66
MAY								
11...	1351	1	13	14.0	--	1	4	15
11...	1352	1	13	14.0	1	4	13	29
11...	1353	1	13	14.0	--	2	9	35
11...	1354	1	13	14.0	--	1	6	48
11...	1355	1	13	14.0	--	1	5	16
11...	1356	1	13	14.0	--	2	11	42

11162500 PESCADERO CREEK NEAR PESCADERO, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993--Continued

DATE	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
NOV								
18...	86	89	91	92	98	100	--	--
18...	62	83	92	95	98	100	--	--
18...	55	68	75	80	90	100	--	--
18...	31	36	39	44	54	66	92	100
18...	29	36	43	54	75	100	--	--
18...	26	30	34	40	52	83	100	--
MAR								
17...	63	89	95	98	100	--	--	--
17...	59	89	96	99	99	100	--	--
17...	83	97	100	--	--	--	--	--
17...	60	67	71	76	85	100	--	--
17...	92	95	96	97	100	--	--	--
17...	94	97	97	98	99	100	--	--
MAY								
11...	67	88	95	98	100	--	--	--
11...	69	86	91	94	98	100	--	--
11...	99	100	--	--	--	--	--	--
11...	98	100	--	--	--	--	--	--
11...	22	24	26	30	39	60	76	100
11...	76	79	82	84	89	92	100	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
DEC									
11...	1300	1000	1150	0.250	0	1250	1305	30	1.0
11...	1315	1000	1150	0.250	0	1310	1323	30	1.0
JAN									
14...	1325	1000	1140	0.250	0	1304	1344	10	2.0
14...	1405	1000	1140	0.250	0	1350	1420	10	2.0
FEB									
19...	1730	1000	1140	0.250	0	1720	1738	15	2.0
MAR									
17...	1500	1000	1150	0.250	0	1450	1508	30	1.0
17...	1520	1000	1150	0.250	0	1511	1530	30	1.0

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
DEC									
11...	2	26	26	5.00	81	11.5	0.15	3.9	1
11...	2	26	26	5.00	79	11.5	0.15	3.9	1
JAN									
14...	2	21	21	7.00	770	10.5	3.35	145	1
14...	2	21	21	7.00	735	10.5	3.54	145	1
FEB									
19...	1	23	23	2.00	642	11.5	1.82	84	1
MAR									
17...	2	30	30	4.00	57	13.5	0.03	1.0	--
17...	2	30	30	4.00	58	13.5	0.04	1.0	1

11162500 PESCADERO CREEK NEAR PESCADERO, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR 1992 TO SEPTEMBER 1993--Continued

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
DEC									
11...	29	88	96	98	99	100	--	--	--
11...	23	84	95	97	99	100	--	--	--
JAN									
14...	8	41	62	74	83	89	93	100	--
14...	9	44	66	75	81	86	93	100	--
FEB									
19...	7	37	66	77	85	90	96	100	--
MAR									
17...	2	12	31	38	43	50	57	60	100
17...	2	18	54	71	83	92	100	--	--

11162570 SAN GREGORIO CREEK AT SAN GREGORIO, CA

LOCATION.--Lat 37°19'33", long 122°23'08", in San Gregorio Grant, San Mateo County, Hydrologic Unit 18050006, on right bank at downstream side of bridge on Old Coast Highway, 0.1 mi south of town of San Gregorio, and 1.4 mi upstream from mouth.

DRAINAGE AREA.--50.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 11.40 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station. Low flows affected by domestic irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,910 ft^3/s, Jan. 4, 1982, gage height, 21.28 ft, from rating curve extended above 560 ft^3/s on basis of contracted-opening measurement of peak flow; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*), from rating curve extended above 640 ft^3/s on basis of slope-area measurement at gage height 17.48 ft:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	0345	1,020	9.64	Feb. 19	2300	1,150	10.05
Jan. 13	0815	*3,530	*15.07	Feb. 26	0530	2,110	12.45
Jan. 20	2145	1,560	11.16				

Minimum daily, 0.18 ft^3/s, Oct. 11, 16, 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	2.7	1.2	340	51	127	77	19	14	4.6	2.7	.84
2	.21	2.2	1.6	110	47	107	63	18	12	4.6	2.1	1.6
3	.39	1.9	5.5	52	45	97	59	19	11	4.7	1.8	1.4
4	.33	1.6	3.3	34	43	84	55	20	13	5.2	1.4	.97
5	.30	1.4	2.0	27	42	74	51	18	17	4.7	1.3	1.4
6	.42	1.4	22	43	39	68	48	18	16	4.6	1.5	1.8
7	.33	1.4	29	664	40	63	42	18	16	3.9	1.7	2.1
8	.25	1.4	8.4	374	86	59	39	17	13	3.6	2.5	1.9
9	.24	1.3	14	178	175	55	39	16	12	3.6	2.3	1.7
10	.20	1.3	39	118	98	53	36	15	11	3.3	2.2	1.6
11	.18	.94	62	78	107	51	34	15	10	3.9	2.2	1.3
12	.23	.27	27	201	75	48	32	14	9.0	3.2	2.3	1.1
13	.29	.22	15	2220	65	46	31	13	9.1	3.2	2.2	1.5
14	.33	.24	11	903	59	45	30	12	8.3	3.2	2.3	1.9
15	.24	.30	8.3	360	54	43	29	13	8.6	3.0	2.8	1.6
16	.18	.81	6.7	281	50	41	27	13	9.0	3.0	2.9	1.3
17	.18	1.2	9.3	415	57	51	37	12	8.3	2.8	2.7	.99
18	.26	1.3	14	468	141	55	35	12	6.8	2.8	2.2	1.2
19	.34	1.5	8.6	243	514	48	29	12	6.2	3.4	2.1	1.9
20	.59	1.5	7.2	533	545	44	27	12	7.3	3.2	2.6	1.6
21	.43	1.8	6.0	555	247	41	25	12	7.0	3.6	2.8	1.5
22	1.0	1.8	5.3	454	173	39	23	11	6.4	3.2	2.4	1.4
23	1.1	2.5	4.8	222	275	56	23	11	6.1	2.8	1.3	1.3
24	.58	2.3	4.3	157	221	117	28	12	6.0	2.8	1.2	.94
25	.38	1.7	4.1	123	170	70	24	17	5.1	2.9	1.5	.81
26	.47	1.5	3.8	101	678	172	23	15	4.5	3.0	1.4	.86
27	.47	1.4	3.8	85	230	122	21	17	5.2	3.2	1.4	.48
28	.51	1.4	44	74	159	110	21	15	5.6	3.3	.93	.61
29	6.7	1.4	113	66	---	87	20	13	5.0	3.2	1.2	.93
30	11	1.4	108	59	---	78	20	13	4.7	2.9	1.0	.89
31	4.0	---	43	55	---	74	---	16	---	2.7	.82	---
TOTAL	32.34	42.08	635.2	9593	4486	2225	1048	458	273.2	108.1	59.75	39.42
MEAN	1.04	1.40	20.5	309	160	71.8	34.9	14.8	9.11	3.49	1.93	1.31
MAX	11	2.7	113	2220	678	172	77	20	17	5.2	2.9	2.1
MIN	.18	.22	1.2	27	39	39	20	11	4.5	2.7	.82	.48
AC-FT	64	83	1260	19030	8900	4410	2080	908	542	214	119	78

11162570 SAN GREGORIO CREEK AT SAN GREGORIO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.16	26.4	53.6	97.6	107	92.6	41.4	12.6	6.05	3.05	1.59	1.27
MAX	11.6	162	297	345	379	432	259	68.5	20.5	11.7	6.68	4.46
(WY)	1984	1973	1984	1982	1986	1983	1982	1983	1982	1974	1982	1983
MIN	.000	.71	1.70	1.17	2.21	2.98	1.05	1.42	.35	.019	.000	.000
(WY)	1978	1977	1977	1991	1977	1977	1977	1977	1981	1988	1977	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1970 - 1993	
ANNUAL TOTAL	10246.03		19000.09			
ANNUAL MEAN	28.0		52.1		36.9	
HIGHEST ANNUAL MEAN					111	1983
LOWEST ANNUAL MEAN					1.16	1977
HIGHEST DAILY MEAN	1970	Feb 12	2220	Jan 13	4120	Jan 4 1982
LOWEST DAILY MEAN	.00	Aug 13	.18	Oct 11	.00	Aug 11 1972
ANNUAL SEVEN-DAY MINIMUM	.02	Aug 16	.23	Oct 11	.00	Aug 11 1972
INSTANTANEOUS PEAK FLOW			3530	Jan 13	7910	Jan 4 1982
INSTANTANEOUS PEAK STAGE			15.07	Jan 13	21.28	Jan 4 1982
INSTANTANEOUS LOW FLOW			.18	Oct 11	.00	Sep 16 1992
ANNUAL RUNOFF (AC-FT)	20320		37690		26720	
10 PERCENT EXCEEDS	52		111		71	
50 PERCENT EXCEEDS	2.0		8.4		4.7	
90 PERCENT EXCEEDS	.10		.85		.20	

11162570 SAN GREGORIO CREEK AT SAN GREGORIO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DATA: Water year 1986, December 1989 to April 1993 (discontinued).

REMARKS.--Zero bedload discharge observed for flows less than 45 ft^3/s during current year.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV										
19...	1005	1.5	10.5	2	0.01	68	--	--	--	--
DEC										
11...	1220	45	11.5	136	17	98	99	100	--	--
15...	1015	8.6	7.5	12	0.28	62	--	--	--	--
JAN										
21...	1510	406	14.5	764	837	78	91	97	99	100
FEB										
26...	1325	548	10.5	2120	3140	74	87	95	99	100
MAR										
18...	1425	67	14.5	46	8.3	84	93	100	--	--
APR										
28...	1445	21	14.5	6	0.34	68	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM
NOV								
19...	1105	1	1.5	10.5	1	4	9	15
19...	1108	1	1.5	10.5	2	4	6	8
19...	1110	1	1.5	10.5	2	4	7	13
19...	1115	1	1.5	10.5	3	8	14	24
19...	1120	1	1.5	10.5	3	8	16	31
19...	1125	1	1.5	10.5	--	1	2	7
19...	1130	1	1.5	10.5	1	1	3	6
MAR								
18...	1557	1	62	14.5	9	24	43	55
18...	1559	1	62	14.5	5	10	17	25
18...	1601	1	62	14.5	1	3	7	11
18...	1606	1	62	14.5	1	3	8	13
18...	1610	1	62	14.5	1	2	3	6
18...	1613	1	62	14.5	--	1	5	14
18...	1620	1	62	14.5	1	5	18	56

DATE	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
NOV							
19...	24	35	46	57	74	85	100
19...	12	16	24	34	60	84	100
19...	22	32	44	57	72	88	100
19...	37	48	61	72	86	100	--
19...	50	62	74	85	93	100	--
19...	13	20	32	49	75	100	--
19...	14	24	38	56	76	100	--
MAR							
18...	58	59	59	60	65	83	100
18...	30	35	39	45	59	80	100
18...	14	16	18	25	40	91	100
18...	17	20	23	28	39	68	100
18...	9	11	14	19	36	100	--
18...	19	21	24	29	43	100	--
18...	75	80	84	91	99	100	--

11162570 SAN GREGORIO CREEK AT SAN GREGORIO, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORI-ZONTAL WIDTH OF VER-TICAL (FEET)
JAN									
21...	1540	1000	1140	0.250	0	1530	1555	15	2.0
FEB									
26...	1400	1000	1140	0.250	0	1350	1405	15	2.0
26...	1420	1000	1140	0.250	0	1415	1430	15	2.0
MAR									
18...	1505	1000	1150	0.250	0	1452	1514	30	1.0
18...	1525	1000	1150	0.250	0	1518	1534	30	1.0

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VER-TICALS IN COM-POSITE SAMPLE (NUM)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM
JAN									
21...	1	21	21	1.00	401	14.5	2.64	111	--
FEB									
26...	2	22	22	1.00	524	10.5	0.46	28	1
26...	2	22	22	1.00	508	10.5	0.79	28	--
MAR									
18...	2	23	23	3.60	65	14.5	0.08	2.0	--
18...	2	23	23	3.60	65	14.5	0.09	2.0	1

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
JAN									
21...	1	2	10	32	56	75	88	97	100
FEB									
26...	4	20	73	92	97	99	100	--	--
26...	3	15	58	75	80	88	95	99	100
MAR									
18...	1	6	37	69	84	95	100	--	--
18...	1	8	53	84	92	97	99	100	--

11162630 PILARCITOS CREEK AT HALF MOON BAY, CA

LOCATION.--Lat 37°28'00", long 122°25'59", on north boundary of Miramontes Grant, San Mateo County, Hydrologic Unit 18050006, on left bank 50 ft downstream from State Highway 1, 0.3 mi northwest of town of Half Moon Bay, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--27.1 mi^2.

PERIOD OF RECORD.--July 1966 to current year.
SEDIMENT DATA: June 1990.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 31.51 ft above sea level. Prior to Nov. 17, 1983, at site 800 ft downstream at different datum.

REMARKS.--Records fair. Flow slightly regulated by storage in Pilarcitos Lake 10 mi upstream, capacity, 3,100 acre-ft. Water is diverted to city of San Francisco water system; small diversions for irrigation upstream from station by pumping.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,750 ft^3/s, Jan. 4, 1982, gage height, 13.08 ft, site and datum then in use, from rating curve extended above 1,000 ft^3/s on basis of contracted-opening measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*), from rating curve extended above 210 ft^3/s on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 1	0645	240	3.70	Jan. 13	0600	*1,010	*8.22
Jan. 7	1515	304	4.18	Jan. 20	1945	474	5.33

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	2.5	.59	95	e19	41	19	6.3	3.8	.53	.28	.00
2	e.00	2.6	5.8	32	e18	36	16	6.5	3.1	.55	.36	.00
3	e.00	1.8	5.0	18	e17	34	15	7.0	3.1	.74	.32	.00
4	e.00	.93	1.7	12	e16	30	15	7.2	4.7	.94	.10	.06
5	e.00	.68	1.2	10	e15	e28	14	8.5	4.9	.80	.17	.39
6	e.00	.61	18	33	e14	e27	13	6.8	4.1	.73	.36	.52
7	e.00	.55	7.4	180	e14	e25	13	5.1	3.7	.73	.51	.40
8	e.00	.58	4.9	136	e15	e24	13	5.1	3.1	.91	.39	.18
9	e.00	.66	15	62	e30	e23	13	5.1	2.8	1.2	.24	.16
10	e.00	.59	32	43	e28	e22	12	5.1	2.4	.84	.00	.08
11	e.00	.47	21	30	e27	e22	11	4.8	2.1	1.1	.00	.23
12	e.00	.46	11	106	e24	e21	11	4.8	e1.9	.82	.13	.46
13	e.00	.47	7.4	e605	e22	e20	10	4.4	e1.7	.48	.38	.44
14	e.00	.48	5.6	e330	e21	e20	10	4.1	e1.5	.43	.62	.30
15	e.00	.45	3.8	e91	e20	e19	10	4.0	e1.4	.43	.86	.36
16	e.00	1.6	2.8	e88	e19	e19	8.8	4.0	e1.4	.56	.72	.29
17	e.00	.66	9.0	e96	e23	e18	12	3.9	e1.3	.55	.42	.42
18	e.00	.54	6.0	e102	e40	e18	9.3	3.8	e1.3	.62	.33	.53
19	e.00	.98	4.2	e80	e81	e17	7.5	3.6	e1.2	.99	.48	.35
20	e.04	.90	3.1	e120	77	17	6.7	4.5	e1.1	1.1	.84	.35
21	e.00	.84	3.3	220	59	16	6.5	4.0	e1.1	.87	.99	.15
22	e.00	1.5	2.7	166	51	16	6.4	3.4	e1.0	.33	.79	.21
23	e.00	1.1	2.0	102	104	24	7.4	3.3	.96	.25	.48	.27
24	e.00	.79	2.1	79	69	46	7.7	4.8	1.1	.31	.19	.22
25	e.00	.68	2.0	61	57	25	6.5	4.8	.85	.93	.20	.24
26	e.00	.63	1.7	49	103	43	6.2	5.5	.81	.84	.21	.25
27	e.00	.76	1.6	40	64	34	5.7	4.8	.76	.44	.16	.22
28	e.00	.84	14	34	49	29	5.4	4.1	.95	.51	.24	.05
29	18	.74	26	31	---	23	4.9	3.6	.49	.50	.31	.04
30	2.9	.65	13	e29	---	21	5.7	4.0	.40	.45	.31	.05
31	.82	---	8.1	e27	---	19	---	4.4	---	.52	.19	---
TOTAL	21.76	27.04	241.99	3107	1096	777	301.7	151.4	59.02	21.00	11.59	7.22
MEAN	.70	.90	7.81	100	39.1	25.1	10.1	4.88	1.97	.68	.37	.24
MAX	18	2.6	32	605	104	46	19	8.5	4.9	1.2	.99	.53
MIN	.00	.45	.59	10	14	16	4.9	3.3	.40	.25	.00	.00
AC-FT	43	54	480	6160	2170	1540	598	300	117	42	23	14

e Estimated.

11162630 PILARCITOS CREEK AT HALF MOON BAY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.22	5.79	16.1	40.6	41.9	37.9	19.4	5.47	1.94	.87	.52	.33
MAX	4.44	32.5	92.1	164	234	278	127	37.2	8.22	3.21	2.01	1.26
(WY)	1983	1983	1971	1982	1983	1983	1982	1983	1967	1967	1982	1983
MIN	.000	.000	.59	.48	.66	1.44	.073	.009	.000	.000	.000	.000
(WY)	1967	1991	1991	1991	1977	1988	1977	1977	1972	1966	1966	1966

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1966 - 1993	
ANNUAL TOTAL	3476.35		5822.72			
ANNUAL MEAN	9.50		16.0		14.2	
HIGHEST ANNUAL MEAN					73.9	1983
LOWEST ANNUAL MEAN					.51	1977
HIGHEST DAILY MEAN	426	Feb 12	605	Jan 13	2150	Jan 4 1982
LOWEST DAILY MEAN	.00	Jul 28	.00	Oct 1	.00	Jul 1 1966
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 24	.00	Oct 1	.00	Jul 1 1966
INSTANTANEOUS PEAK FLOW			1010	Jan 13	4750	Jan 4 1982
INSTANTANEOUS PEAK STAGE			8.22	Jan 13	13.08	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	6900		11550		10300	
10 PERCENT EXCEEDS	21		35		28	
50 PERCENT EXCEEDS	1.4		2.8		1.8	
90 PERCENT EXCEEDS	.00		.06		.00	

11162690 SAN FRANCISCO BAY AT PRESIDIO MILITARY RESERVATION, CA

WATER-QUALITY RECORDS

LOCATION.--Lat 37°48'24", long 122°27'54", in NE 1/4 NE 1/4 sec.36, T.1 S., R.6 W., in San Miguel Grant, San Francisco County, Hydrologic Unit 18050002, et end of Coast Guard dock at Presidio Militery Reservetion.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1990 to current yeer.
WATER TEMPERATURE: October 1990 to current year.

INSTRUMENTATION.--Weter-quality monitor since October 1990.

REMARKS.--Interruptions in record were due to malfunction of the sensing and/or recording instruments. The probe ie set at 4.0 ft below Mean Lower Low Water (MLLW). Daily maximums and minimums sometimes differ from tidel-cycle (24.8 hours) maximums and minimums.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 50,900 microsiemens, May 26, June 30, and July 1, 1991; minimum recorded, 20,600 microsiemens, Mar. 31, 1993.
WATER TEMPERATURE: Maximum recorded, 18.5°C, severel days in July 1992, June 12, August 11, 26, 27, 1993; minimum recorded 8.0°C, several days during December 1990 and Jenuary 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 50,700 microsiemens, Aug. 8; minimum recorded, 20,600 microsiemens, Mar. 31.
WATER TEMPERATURE: Maximum recorded, 18.5°C, June 12, Aug. 11, 26, 27; minimum recorded, 9.0°C, Jan. 15.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	48200	47000	48400	47500	---	---	48600	43300	44100	28900	39200	23500
2	48400	47300	48400	47200	---	---	47900	42800	44400	33000	43700	22000
3	48400	46800	48400	47000	---	---	47900	43700	45200	35400	42000	27900
4	48600	47200	48400	47300	---	---	47500	44400	46100	37700	43600	31700
5	48600	47400	48400	47400	---	---	47400	44400	46000	39300	44900	35100
6	48600	47600	48300	47300	---	---	47300	44100	45900	39500	45400	35300
7	48500	47300	48300	47200	---	---	47600	44200	45900	39700	44600	36500
8	48700	47000	48400	47300	---	---	47300	43800	45200	40400	44500	38400
9	48800	46600	48600	47300	---	---	47300	43900	44900	37700	44200	37300
10	48500	47400	48500	47200	---	---	46900	43400	44900	39000	44000	37400
11	48500	47500	48500	47300	---	---	46200	42800	44700	40000	44100	37300
12	48600	47700	48600	47400	---	---	46000	42200	45300	38800	44500	36500
13	48600	47700	48500	47300	---	---	47200	41700	45300	36400	45000	37600
14	48800	47900	48600	47300	---	---	46200	39100	45000	36700	45000	32300
15	48800	47800	48700	47400	---	---	45500	36700	45200	36300	44700	35800
16	48700	47800	48500	47400	47700	45800	46300	36800	45300	37300	44100	34700
17	48700	47800	48700	47300	47500	45800	46500	36800	46200	39100	44800	37900
18	48600	47700	48600	47700	47500	45200	46200	35800	45700	38400	44400	36900
19	48500	47600	48600	47500	47800	45500	46300	36100	46000	40300	44400	36500
20	48400	47500	48700	47500	47700	45600	47000	37500	45700	36000	44100	35600
21	48500	47600	48700	47600	47600	45300	45800	32400	44700	36400	45600	35800
22	48500	47600	48700	47500	47700	45200	45500	29800	44000	31500	45900	36300
23	48400	47100	48900	47400	47400	45100	45200	29700	44600	30900	45500	37300
24	48300	47500	---	---	47200	45200	43800	28200	43300	27500	45100	35100
25	48600	47700	---	---	47200	45400	43500	27400	43100	26300	45000	33600
26	48600	47600	---	---	47700	45500	42200	26700	40700	22100	44400	32300
27	48700	47600	---	---	47700	45600	42500	27100	44100	21600	44700	31000
28	48700	47600	---	---	47900	45600	44200	24600	39200	23600	43300	26500
29	48500	47500	---	---	48400	46300	42300	26500	---	---	43800	27400
30	48700	47600	---	---	47600	45600	32800	23500	---	---	44100	22900
31	48600	47700	---	---	48000	45600	45300	23800	---	---	44400	20600
MONTH	48800	46600	---	---	---	---	48600	23500	46200	21600	45900	20600

11162690 SAN FRANCISCO BAY AT PRESIDIO MILITARY RESERVATION, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	41400	24000	47700	39500	46900	41700	49500	41500	49400	46500	---	---
2	43000	25300	47500	41900	47000	42200	49900	42500	49700	46500	---	---
3	44200	27500	47500	41000	47100	42400	49800	39500	49700	46700	---	---
4	44400	31700	47100	41100	47000	42400	49200	41900	49600	45300	---	---
5	44400	32100	47100	39500	47100	42300	48800	43600	49500	46800	---	---
6	45200	33100	47500	41800	47200	42200	49300	45000	49600	46700	---	---
7	44600	33100	47200	42100	46900	41400	49500	43300	49800	46300	---	---
8	45300	33400	48000	41800	47000	39800	49100	41600	50700	46400	---	---
9	44000	34500	47800	41500	48300	38100	49000	45500	50400	46500	---	---
10	44500	32900	47900	42200	47600	35800	49600	46200	49000	45200	---	---
11	43600	32800	48200	41500	47800	36500	50100	46300	49300	43600	---	---
12	45000	31500	47600	41300	48800	32300	50300	46800	49400	45600	---	---
13	46400	31400	48300	42100	49400	36000	50300	46400	49500	45800	---	---
14	47100	31300	47900	38200	48000	36300	50200	46200	49400	46100	---	---
15	46200	31500	47900	37900	48600	38100	49900	45700	49100	46000	---	---
16	46700	33400	47400	39000	49400	39800	49800	46100	49000	44300	---	---
17	46600	38100	47200	39700	49500	40200	50100	46400	48900	46000	---	---
18	45800	38000	47300	40800	49300	41400	49900	46300	---	---	---	---
19	45300	36900	46600	41800	49300	42600	49900	46400	---	---	---	---
20	45500	37900	46600	42300	49000	43000	49700	46800	---	---	---	---
21	46000	38700	46700	42000	49000	43600	49600	46700	---	---	---	---
22	45800	39200	46900	42100	48900	42500	49600	46400	---	---	---	---
23	47100	39300	47000	42000	49200	43700	49400	46400	---	---	---	---
24	47100	39100	46900	42200	49200	42000	49400	44000	---	---	---	---
25	47000	39300	46300	42200	49200	40500	49400	47000	---	---	---	---
26	46400	39000	47500	43100	48300	40400	49400	46900	---	---	---	---
27	47600	39600	47700	42600	48700	44600	49300	46800	---	---	---	---
28	47700	38500	47400	40800	49200	40900	49100	46700	---	---	---	---
29	47500	37700	47000	40300	49400	42000	49600	46100	---	---	---	---
30	48000	38000	47000	42300	49400	43900	49400	46800	---	---	---	---
31	---	---	47000	42200	---	---	49700	46300	---	---	---	---
MONTH	48000	24000	48300	37900	49500	32300	50300	39500	---	---	---	---

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.5	16.0	16.5	16.0	13.5	13.0	11.5	9.5	11.5	10.0	12.0	11.0
2	17.0	16.0	16.5	16.0	13.0	13.0	11.0	9.5	12.0	10.5	12.5	11.0
3	17.0	16.0	16.5	16.0	13.0	13.0	11.0	9.5	12.0	11.0	12.5	11.5
4	17.0	16.0	16.5	16.0	13.0	13.0	11.0	10.0	12.0	11.5	13.5	12.0
5	17.0	16.0	16.5	16.0	13.0	12.5	11.0	10.0	12.0	11.5	13.5	12.0
6	17.0	16.0	16.5	16.0	13.0	12.5	10.5	10.0	12.0	11.5	13.0	12.5
7	17.0	16.0	16.5	16.0	13.0	12.5	11.0	10.0	12.0	12.0	13.0	13.0
8	17.0	16.0	16.5	16.0	12.5	12.5	11.0	9.5	12.5	12.0	13.0	13.0
9	17.0	16.0	16.5	15.5	12.5	12.5	11.0	10.0	12.5	12.0	13.5	13.0
10	17.5	16.0	16.0	15.5	13.0	12.5	10.5	9.5	12.5	12.0	13.5	13.0
11	17.5	16.0	16.0	15.0	13.0	12.5	10.5	9.5	12.5	12.0	14.0	13.0
12	17.5	16.0	16.0	15.0	13.0	12.0	10.5	9.5	12.5	12.0	14.0	13.0
13	17.5	16.0	15.5	15.0	12.5	12.0	11.0	9.5	12.5	12.0	14.5	13.5
14	17.0	16.0	15.5	15.0	12.5	12.0	10.5	9.5	12.5	11.5	14.5	13.0
15	17.5	16.0	15.5	14.5	12.5	12.0	10.5	9.0	12.5	12.0	14.5	13.5
16	17.5	16.0	15.5	14.5	12.5	12.0	11.0	9.5	12.5	12.0	14.5	13.5
17	17.0	16.0	15.0	14.5	12.5	12.0	11.0	9.5	12.5	12.0	14.5	13.5
18	17.0	16.0	15.0	14.5	12.0	11.5	11.0	9.5	12.5	12.0	15.0	13.5
19	17.0	16.0	15.0	14.5	12.0	11.5	11.5	9.5	12.5	12.0	14.5	14.0
20	16.5	16.0	15.0	14.0	12.0	11.5	11.5	10.0	12.5	12.0	15.0	13.5
21	17.0	16.0	14.5	14.0	12.0	11.5	11.5	10.0	12.5	11.5	15.0	13.5
22	17.0	16.0	14.5	14.0	12.0	11.5	11.5	10.0	12.0	11.5	14.5	13.5
23	17.0	16.0	14.5	14.0	12.0	11.0	11.5	10.0	12.5	11.5	14.5	13.5
24	17.0	16.5	14.0	13.5	11.5	11.0	11.5	9.5	12.0	11.0	14.5	13.5
25	17.0	16.0	14.0	13.5	11.5	10.5	11.5	10.0	12.0	11.0	14.5	13.5
26	17.0	16.0	14.0	13.5	11.5	10.5	11.5	10.0	12.0	11.0	14.5	13.5
27	17.0	16.0	14.0	13.5	11.0	10.5	11.5	10.0	12.0	11.0	14.5	13.0
28	17.0	16.0	13.5	13.5	11.5	10.5	11.5	10.0	12.0	11.0	14.5	13.0
29	17.0	16.0	13.5	13.0	11.5	10.5	11.5	10.0	---	---	14.0	12.5
30	16.5	15.5	13.5	13.0	11.0	10.5	11.0	9.5	---	---	14.5	12.5
31	16.5	16.0	---	---	11.0	10.5	12.0	10.0	---	---	14.0	12.5
MONTH	17.5	15.5	16.5	13.0	13.5	10.5	12.0	9.0	12.5	10.0	15.0	11.0

11162690 SAN FRANCISCO BAY AT PRESIDIO MILITARY RESERVATION, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.5	12.5	14.5	11.0	17.0	15.5	16.0	12.5	17.0	15.0	17.5	16.0
2	14.5	12.5	14.0	11.0	17.0	15.5	16.0	12.5	17.5	15.0	17.5	16.0
3	14.0	12.5	14.0	11.0	17.0	15.5	15.5	12.0	17.5	15.5	17.0	16.0
4	14.0	12.5	13.5	11.5	17.0	15.5	15.5	12.5	17.5	16.0	17.0	16.0
5	13.5	12.5	13.5	11.5	17.0	15.5	15.5	12.5	17.5	16.0	17.0	16.0
6	13.5	12.5	14.0	11.5	17.0	15.5	15.5	13.0	17.5	16.0	17.0	16.0
7	14.0	12.5	14.0	11.5	17.0	15.5	15.5	13.5	17.5	16.0	17.5	15.5
8	14.0	12.5	14.0	11.0	17.5	15.0	15.5	13.5	17.5	16.0	17.5	15.5
9	14.5	12.5	14.5	11.0	18.0	14.0	15.5	14.0	18.0	16.0	17.5	15.5
10	14.5	12.5	14.5	11.0	18.0	14.0	16.0	14.0	18.0	16.0	17.5	15.5
11	15.0	12.5	14.5	11.0	18.0	13.5	16.0	14.0	18.5	16.0	17.0	15.0
12	14.5	12.0	14.5	11.5	18.5	12.5	16.0	14.0	18.0	16.0	17.5	15.0
13	14.5	11.5	14.5	12.0	18.0	11.5	16.0	14.0	17.5	15.5	17.0	15.0
14	14.5	11.0	15.5	12.5	17.5	12.5	16.5	14.5	17.5	15.5	16.5	15.0
15	14.5	11.5	15.5	12.5	16.5	12.0	16.5	15.0	17.0	15.5	16.5	15.0
16	14.0	11.0	15.0	12.5	16.5	11.5	17.0	14.5	17.5	15.5	16.5	15.5
17	13.0	11.0	15.0	12.5	16.5	11.5	17.0	14.5	17.5	15.5	16.5	15.5
18	13.5	11.5	15.0	12.5	16.5	11.5	17.0	14.5	17.5	15.5	16.5	15.5
19	13.5	12.0	14.5	13.0	16.0	12.0	16.5	14.5	17.4	15.5	16.5	15.5
20	13.5	12.0	15.0	13.5	15.5	12.5	16.5	14.5	17.5	16.0	16.5	15.0
21	14.0	12.0	15.5	14.0	15.5	12.5	16.5	14.5	17.5	15.5	16.0	15.0
22	14.0	12.5	16.0	14.0	16.0	13.0	17.0	14.5	17.5	15.5	16.0	15.0
23	14.0	11.5	16.0	14.0	16.5	12.5	17.0	14.5	17.5	15.0	16.0	15.0
24	14.0	11.5	16.0	13.5	17.0	12.5	16.5	14.0	17.5	15.0	16.0	15.0
25	14.0	12.0	16.0	14.0	17.0	12.5	16.0	14.5	17.5	15.0	16.5	15.0
26	14.5	12.0	15.5	14.5	16.0	13.0	16.5	14.5	18.5	14.5	16.5	15.0
27	14.5	11.5	16.5	14.5	15.0	12.5	16.5	14.5	18.5	15.0	16.0	15.0
28	15.0	11.5	17.0	15.0	15.5	12.5	16.5	14.5	18.0	15.5	16.0	15.0
29	15.0	11.5	17.0	15.0	15.5	12.0	16.5	14.5	18.0	15.5	16.0	14.5
30	15.5	11.0	16.5	15.0	16.0	12.5	16.5	15.0	17.5	15.5	16.0	14.5
31	---	---	16.5	15.5	---	---	17.0	15.0	17.0	15.5	---	---
MONTH	15.5	11.0	17.0	11.0	18.5	11.5	17.0	12.0	18.5	14.5	17.5	14.5

11162700 SAN FRANCISCO BAY AT PIER 24, AT SAN FRANCISCO, CA

WATER-QUALITY RECORDS

LOCATION.--Lat 37°47'27", long 122°23'05", in SE 1/4 NW 1/4 sec.2, T.2 S., R.5 W., in San Miguel Grant, San Francisco County, Hydrologic Unit 18050002, at end of Pier 24 and directly under the west end of the San Francisco-Oakland Bay Bridge.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1989 to current year.
WATER TEMPERATURE: October 1989 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1989.

REMARKS.--Interruptions in record were due to malfunction of the sensing and/or recording instruments. Upper probe is set at 8.8 ft below Mean Lower Low Water (MLLW). Lower probe is set at 39.3 ft below MLLW. Daily maximums and minimums sometimes differ from tidal-cycle (24.8 hours) maximums and minimums.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 50,700 microsiemens, Aug. 13, 1991; minimum recorded, 17,400 microsiemens, Jan. 25, 1993.
(Lower probe) Maximum recorded, 50,300 microsiemens, Sept. 6, 9-12, 1991; minimum recorded, 17,800 microsiemens, Jan. 23, 1993.
WATER TEMPERATURE: (Upper probe) Maximum recorded, 20.5°C, July 23, 1992; minimum recorded, 7.5°C, Dec. 26, 30, 1990, Jan. 1-3, 1991.
(Lower probe) Maximum recorded, 20.0°C, on several days in July 1992; minimum recorded, 7.5°C, Jan. 2, 3, 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 49,400 microsiemens, Oct. 26; minimum recorded, 17,400 microsiemens, Jan. 23.
(Lower probe) Maximum recorded, 48,100 microsiemens, Nov. 11-13; minimum recorded, 17,800 microsiemens, Jan. 23.
WATER TEMPERATURE: (Upper probe) Maximum recorded, 19.5°C, July 30, Aug. 1, 24; minimum recorded, 8.5°C, Jan. 12, 15-17.
(Lower probe) Maximum recorded, 19.5°C, Aug. 1, 24; minimum recorded, 9.5°C, Jan. 12-17.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	48300	47500	47900	47000	47000	44900	47000	41600	40800	25700	38000	20600
2	48000	47500	47700	46200	47200	44400	44500	39800	39300	28500	38200	22000
3	48000	46700	47300	45400	46900	45100	44500	40100	42100	32600	37400	21600
4	47900	46500	47300	44600	46900	44800	45000	41100	42400	34400	37000	27000
5	47900	46300	47500	45400	47100	45400	46200	41000	42500	35600	40200	29900
6	47600	46100	47900	45600	47300	46100	46700	40400	43000	35200	41600	31100
7	47500	46300	48000	46800	47500	44700	47100	40900	43900	36800	42400	31200
8	47900	46900	48100	47200	47300	46000	46300	39600	44900	37800	42100	33100
9	47600	46900	48100	47100	47500	43800	45700	39700	43700	37300	42400	34500
10	47700	46800	48100	47200	47600	44100	45600	38900	43500	36600	42400	34000
11	47400	46800	48200	47200	47400	43500	44800	38100	44000	32900	42000	33800
12	47600	46700	48200	47000	47000	42600	44200	36800	40900	31100	41300	30900
13	47600	46400	48200	47000	46600	42800	45000	35300	41500	28600	40900	32600
14	47400	46800	48200	47000	46500	43100	44000	35000	41100	28500	41600	32000
15	47500	46800	48000	47100	46300	42900	41700	31800	41700	31000	40600	29600
16	47400	46700	48000	47100	46200	41900	41900	26600	40400	29000	39900	29000
17	47500	46800	47900	47100	46300	41900	42800	25900	41900	32200	41500	33700
18	47400	46800	47900	47000	45900	41800	41400	26000	40600	30900	40100	32600
19	47500	46900	47800	47100	46200	42300	40400	26600	42700	36300	39500	31200
20	47500	46900	47800	47000	46500	41700	41800	26800	40800	32100	39600	31300
21	47500	47000	47800	47000	46400	41600	40000	26400	39300	26300	40500	31300
22	47600	47000	47900	46900	46300	41400	39300	19900	38500	23900	40500	30300
23	47700	47200	47900	46800	46200	42200	38800	17400	39000	25400	40900	30400
24	47800	47200	47800	46700	46300	43900	38300	18000	37200	21300	40500	27300
25	47900	47200	47800	46500	46200	43900	37400	20000	35500	19400	39800	25300
26	49400	47200	47700	46400	46100	43700	36900	20400	33900	18800	---	---
27	47900	47500	47600	46300	46200	43900	35200	21700	35800	19900	---	---
28	48000	47300	47600	46400	46600	44300	34900	22400	35500	20800	---	---
29	48000	47300	47400	46500	46600	44400	34600	21900	---	---	---	---
30	48000	47300	47200	45500	45800	43300	33800	24200	---	---	---	---
31	48000	47300	---	---	45100	41500	39900	25100	---	---	---	---
MONTH	49400	46100	48200	44600	47600	41400	47100	17400	44900	18800	---	---

11162700 SAN FRANCISCO BAY AT PIER 24, AT SAN FRANCISCO, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	42400	35500	44000	37900	45300	39800	47500	42500	47300	44600
2	---	---	44800	34900	44900	37800	46200	40200	47500	43000	47300	44200
3	---	---	44400	38300	44200	37900	46100	41300	47300	44700	47200	44600
4	---	---	44400	38300	44000	38100	46400	40800	46900	44600	47300	44000
5	---	---	45300	34900	44100	36900	46400	42300	47100	43300	46700	44200
6	---	---	44900	39600	44100	36700	---	---	47000	43100	46700	44000
7	---	---	45300	37200	43700	34800	---	---	46200	42200	46600	43400
8	---	---	44300	36500	43100	33300	---	---	46000	42600	46600	43100
9	---	---	43300	34500	43900	31700	45000	41600	46100	42500	46700	42700
10	---	---	44000	36700	43700	32500	44800	41400	45900	42100	46500	42600
11	---	---	43500	37800	42100	30800	45300	42300	46200	42400	47300	43300
12	---	---	43000	35200	45000	33100	45800	41700	46000	41500	47300	44000
13	---	---	42700	36700	45100	32600	46000	40900	47000	42400	47400	44700
14	39700	26100	43300	35200	44400	31100	46300	40200	47300	42300	47200	44900
15	39600	28300	43600	36300	44700	34500	46300	41300	47300	44100	47000	45000
16	40800	31000	42400	36300	45000	34600	46500	41400	47200	42800	47000	44400
17	41600	33900	42900	35600	45200	34400	47000	41500	47400	42400	46200	44500
18	39500	32000	42400	33600	44400	37500	47100	41500	47200	44500	46200	44400
19	40900	31300	43400	38400	44800	38700	47000	43400	47200	44000	46300	44400
20	40700	31900	42900	38700	45300	38800	46600	41900	47000	44100	---	---
21	41100	33300	43300	38000	44400	38700	46700	43300	47100	43800	---	---
22	41200	35700	44700	38400	44500	38500	46300	43700	47400	43500	---	---
23	41600	36000	43800	38200	44700	37900	46500	44000	47400	44800	46800	43500
24	42700	32800	44000	39100	44900	35900	47000	43500	47600	43600	46700	42800
25	42500	31500	44000	41700	45100	35800	47300	43800	47400	42900	46400	41800
26	42400	31900	44200	39600	45500	38700	47300	43800	47000	42600	46400	43400
27	41800	32900	44100	38600	45300	39600	47300	43000	47300	42600	46500	42900
28	42400	32200	44000	36800	44600	38100	47400	43300	47500	43100	46600	43500
29	42900	30900	43400	36500	45000	39300	47400	43400	47600	44500	46700	44700
30	43100	34600	43400	36700	45500	39100	47600	43300	47500	45100	46800	44800
31	---	---	44100	36100	---	---	47600	42400	47400	45000	---	---
MONTH	---	---	45300	33600	45500	30800	---	---	47600	41500	---	---

11162700 SAN FRANCISCO BAY AT PIER 24, AT SAN FRANCISCO, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	47900	47200	47700	46800	46300	44200	45400	40600	44000	26600	42300	20000
2	47800	47100	47700	46100	46300	43800	44200	38300	44200	27500	43200	20500
3	47700	46400	47500	45500	45900	44300	44100	38800	43200	31000	42800	21800
4	47700	46100	47500	44600	46100	44200	43900	39400	42400	32700	40600	26000
5	47600	45900	47600	45500	46100	44600	44500	39300	43500	34000	40400	28400
6	47500	45800	47800	45800	46300	45000	44900	39100	43200	34100	41400	30000
7	47300	45900	47900	46900	46600	43800	45300	39500	43400	35300	42000	29700
8	47300	45500	47900	46700	46200	44800	44700	38200	43200	35900	41100	31700
9	47300	46300	48000	46700	46600	43100	44200	38100	42200	35800	40700	33200
10	47200	46300	48000	46600	46500	41600	43800	37400	41600	34800	41100	32700
11	47200	46300	48100	46600	46400	42500	43100	36400	42300	31900	41000	32500
12	47100	46200	48100	46600	46100	41300	42300	35500	41500	30800	41800	30000
13	47000	46300	48100	46600	45700	41900	43700	34300	40800	29200	41300	31800
14	46800	45700	47900	46300	45600	43700	43400	34300	41400	28300	41200	30800
15	47000	45800	47700	46400	45100	42100	42200	31200	42100	29900	40500	29200
16	47100	45900	47500	46300	44900	41000	41500	27500	40700	28500	41200	28400
17	47100	45600	47500	46400	45100	41000	42500	26000	41900	30900	41500	32600
18	47000	45700	47400	45800	44900	40600	41300	26300	40900	30700	40500	31900
19	47200	45800	47300	46200	45000	41300	40800	26300	42100	34600	40500	31000
20	47200	46000	47300	46100	45200	40800	41400	27100	---	---	40000	31500
21	47200	45900	47200	46000	45100	40700	40100	26000	---	---	40800	31600
22	47400	46200	47200	46100	45000	40400	40000	19200	---	---	40900	29600
23	47400	46200	47300	44700	45100	40900	39700	17800	---	---	41500	30800
24	47400	46400	46800	43800	45000	42300	39200	18300	---	---	41400	27900
25	47400	46300	47200	44300	45200	42200	38900	18600	38700	20600	40500	25000
26	47800	46500	45200	42600	45200	42000	39400	20700	41800	18300	---	---
27	47500	46300	47100	44300	44500	42300	39500	21300	42200	18800	---	---
28	47600	46600	46900	43000	45000	42700	40500	22500	41800	19700	---	---
29	47500	46700	46800	44800	44900	42800	41400	29900	---	---	---	---
30	47700	46400	46500	44600	44700	41900	42000	23500	---	---	---	---
31	47800	46700	---	---	44500	40300	44500	24200	---	---	---	---
MONTH	47900	45500	48100	42600	46600	40300	45400	17800	---	---	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	45700	36500	45300	38100	46700	40300	47100	42400	46600	43700
2	---	---	44800	35500	45200	37800	46400	40700	47000	42800	46400	43300
3	---	---	44700	38300	45600	38100	46700	41600	47000	44300	46000	42500
4	---	---	44800	38300	44800	38200	46700	41400	46800	44400	46200	42800
5	---	---	45700	38200	44500	37200	46700	42600	47000	44000	46200	43200
6	---	---	46200	39400	44500	37200	---	---	46900	42900	45600	42800
7	---	---	45200	37600	44000	35700	---	---	46800	42000	45700	42300
8	---	---	45100	37300	44400	34000	---	---	46500	42700	45900	41800
9	---	---	44500	35600	44800	32600	46000	42000	46600	42500	45800	41200
10	---	---	44800	36800	44600	33700	46300	41800	46400	42100	45900	41300
11	---	---	44400	37600	45200	31900	46000	42900	46500	42300	45500	41800
12	---	---	44600	36300	46200	34300	46600	42100	47100	41800	46000	42400
13	---	---	44200	37400	46500	35400	46300	41100	47000	42700	45600	43100
14	44300	27000	44600	35800	46300	32400	46500	40600	47200	42600	45500	43100
15	43900	33200	44200	37400	45900	35200	46500	41300	47400	44100	45300	43200
16	43000	31800	44200	36700	46500	35300	46600	41400	47300	43000	45400	43300
17	42400	34500	44300	36400	46300	33500	47000	41600	47500	42800	45500	43600
18	41000	32100	44900	34200	45800	38200	47000	41500	47500	44500	45400	43400
19	41900	31700	44200	38700	46400	39200	46900	43200	47300	44600	45500	43400
20	42100	32300	43700	38800	46000	39200	46500	41800	47200	44300	---	---
21	42100	33900	44500	38200	45200	39100	46700	43300	47300	44000	---	---
22	42200	35700	44900	38500	45000	39200	46300	43500	47500	43600	---	---
23	42800	35900	44500	38400	45300	38700	46400	43800	47300	44700	45300	42100
24	44100	33200	44700	39100	45700	36800	46800	43400	47700	43600	45300	41400
25	43700	32300	44400	41000	46000	37000	47000	43800	47500	42600	45000	41600
26	42600	32700	44700	39500	46000	39200	46900	43500	47200	42800	44900	42000
27	43500	33500	45100	38400	46400	39900	46700	42600	46900	42600	45100	41500
28	44300	33000	45400	37100	46300	39300	46600	42700	47100	42800	45200	42200
29	44400	32100	45200	36700	45900	39800	46800	42800	46900	44000	45400	43200
30	44800	35100	45100	37000	46400	39700	47200	42900	46700	44400	45400	43400
31	---	---	45300	37000	---	---	47300	42200	46600	44300	---	---
MONTH	---	---	46200	34200	46500	31900	---	---	47700	41800	---	---

11162700 SAN FRANCISCO BAY AT PIER 24, AT SAN FRANCISCO, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	16.5	17.0	16.0	13.5	13.0	11.0	10.0	11.5	10.0	12.0	11.0
2	18.5	16.5	17.0	16.5	13.5	12.5	10.5	9.5	11.5	10.5	12.0	11.0
3	18.0	16.5	17.0	16.5	13.5	12.5	10.5	9.5	12.0	11.0	12.5	12.0
4	18.0	16.5	17.0	16.5	13.0	12.5	10.5	9.5	12.0	11.5	13.5	12.0
5	18.0	16.5	17.5	16.0	13.0	12.5	11.0	9.5	12.0	11.5	13.5	12.5
6	18.0	17.0	17.5	16.0	13.0	12.5	11.0	9.0	12.0	11.5	13.5	12.5
7	18.5	17.0	17.5	16.0	13.0	12.5	11.0	9.5	12.5	12.0	13.5	13.0
8	18.5	16.5	17.5	16.0	12.5	12.5	10.5	9.5	12.5	12.0	13.5	13.0
9	18.5	16.5	17.5	16.0	13.0	12.5	10.5	9.5	12.5	12.0	14.0	13.5
10	18.5	16.5	17.0	15.5	13.0	12.5	10.5	9.5	12.5	12.0	14.0	13.5
11	19.0	16.5	17.0	15.5	13.0	12.5	10.5	9.0	12.5	12.0	14.0	13.5
12	19.0	16.5	16.5	15.5	12.5	12.0	10.0	8.5	12.5	11.5	15.0	13.5
13	19.0	16.0	16.5	15.0	12.5	12.0	10.5	9.0	12.5	11.5	14.5	14.0
14	19.0	16.5	16.5	15.0	12.5	12.0	10.5	9.0	12.5	11.5	15.0	13.5
15	18.5	16.5	16.0	15.0	12.5	12.0	10.0	8.5	12.5	12.0	15.0	14.0
16	18.5	16.5	16.0	15.0	12.5	11.5	10.0	8.5	12.5	11.5	15.0	14.0
17	18.5	16.5	16.0	15.0	12.5	11.5	10.5	8.5	12.5	12.0	15.0	14.0
18	18.0	16.5	15.5	14.5	12.0	11.0	10.5	9.0	12.5	12.0	15.5	14.0
19	18.0	16.5	15.5	14.5	12.0	11.0	10.5	9.0	12.5	12.0	15.0	14.5
20	18.0	16.5	15.0	14.5	12.0	11.0	10.5	9.5	12.5	11.5	15.0	14.5
21	18.0	16.5	15.0	14.0	12.0	11.0	10.5	9.5	12.0	11.5	15.5	14.5
22	18.0	16.5	15.0	14.0	12.0	11.0	10.5	9.5	12.0	11.5	15.5	14.5
23	18.5	16.5	15.0	14.0	12.0	11.0	11.0	9.5	12.0	11.5	15.5	14.0
24	18.5	16.5	14.5	14.0	11.5	11.0	11.0	9.5	12.0	11.0	15.5	14.0
25	18.5	16.5	14.5	13.5	11.5	10.5	11.0	10.0	12.0	11.0	15.5	14.0
26	18.5	16.0	14.0	13.5	11.5	10.5	11.0	10.0	12.0	11.0	---	---
27	18.0	16.5	14.0	13.5	11.0	10.5	11.0	10.0	12.0	11.0	---	---
28	18.0	16.0	14.0	13.5	11.0	10.5	11.0	10.0	12.0	11.0	---	---
29	17.5	16.0	14.0	13.5	11.0	10.5	11.0	10.0	---	---	---	---
30	17.0	16.0	13.5	13.0	11.0	10.0	11.0	10.0	---	---	---	---
31	17.0	16.0	---	---	10.5	9.5	11.5	10.0	---	---	---	---
MONTH	19.0	16.0	17.5	13.0	13.5	9.5	11.5	8.5	12.5	10.0	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	16.5	13.0	17.5	16.0	18.0	14.0	19.5	15.5	18.5	16.5
2	---	---	15.5	12.0	17.5	16.0	18.0	13.0	19.0	16.0	18.5	16.5
3	---	---	15.0	12.5	17.5	16.0	18.0	13.0	18.5	16.5	18.5	16.5
4	---	---	15.0	12.5	17.5	16.0	18.5	13.0	19.0	16.5	18.5	16.5
5	---	---	15.0	12.0	17.0	16.0	17.0	13.0	18.5	17.0	18.5	17.0
6	---	---	14.5	12.0	17.5	16.0	---	---	18.5	17.0	18.5	17.0
7	---	---	15.5	12.0	18.0	16.0	---	---	19.0	17.5	19.0	17.5
8	---	---	15.5	12.5	18.0	16.0	---	---	19.0	17.5	18.5	17.5
9	---	---	16.0	13.0	18.0	15.5	17.5	15.0	19.0	17.5	18.5	17.0
10	---	---	15.5	13.0	18.0	15.5	18.0	15.5	19.0	17.5	19.0	17.0
11	---	---	15.0	13.0	18.0	15.5	17.5	15.5	19.0	17.5	18.5	16.0
12	---	---	15.5	13.5	18.0	13.5	17.5	15.5	19.0	17.5	19.0	16.0
13	---	---	16.0	13.5	18.5	13.5	18.0	15.5	19.0	16.5	19.0	15.5
14	14.5	12.5	16.5	14.0	17.5	13.5	18.0	15.5	18.5	16.0	18.5	15.5
15	15.0	12.5	16.0	13.5	17.5	13.5	17.5	15.5	19.0	16.0	18.0	15.5
16	14.5	12.5	16.0	14.0	17.0	13.0	18.0	15.5	19.0	16.5	18.0	15.5
17	14.0	12.0	16.0	14.0	18.0	13.5	19.0	15.0	19.0	16.0	18.0	15.5
18	14.5	12.5	17.0	14.5	17.5	14.0	18.5	15.0	19.0	16.0	18.0	16.0
19	14.5	13.0	15.5	14.0	17.5	14.0	18.5	15.0	18.5	16.0	18.0	15.5
20	14.5	13.0	16.0	14.5	17.5	13.5	19.0	15.0	18.5	16.5	18.0	15.5
21	14.5	13.0	16.5	14.5	17.5	14.0	18.5	15.0	18.5	16.5	18.0	15.5
22	14.5	13.0	16.5	14.5	18.5	14.0	18.5	16.0	19.0	16.0	18.0	15.5
23	14.5	13.0	16.5	15.0	17.5	14.0	19.0	15.5	18.5	16.0	17.5	15.5
24	15.0	13.0	16.5	14.5	18.0	14.0	18.5	15.0	19.5	16.0	17.5	16.0
25	14.5	13.0	17.0	15.0	18.5	13.5	18.5	15.0	19.0	16.0	17.5	16.0
26	15.0	13.0	16.5	15.0	17.5	13.5	18.5	15.0	19.0	16.0	17.5	16.0
27	15.5	13.0	17.0	15.0	17.5	13.5	18.5	15.0	18.5	16.0	17.5	15.5
28	15.5	13.0	17.0	15.5	17.5	14.5	19.0	15.0	18.5	15.5	17.5	15.5
29	15.5	12.5	17.5	16.0	18.0	14.0	18.5	15.0	18.5	15.5	17.5	15.5
30	16.0	13.0	17.0	16.0	18.0	13.5	19.5	15.0	18.5	16.0	17.5	15.0
31	---	---	17.5	16.0	---	---	19.0	15.5	19.0	16.5	---	---
MONTH	---	---	17.5	12.0	18.5	13.0	---	---	19.5	15.5	19.0	15.0

11162700 SAN FRANCISCO BAY AT PIER 24, AT SAN FRANCISCO, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	16.5	17.0	16.0	13.5	13.0	11.5	10.5	13.0	11.5	13.5	12.0
2	18.5	16.5	17.5	16.5	13.5	13.0	11.5	10.0	13.0	11.5	13.5	12.5
3	18.5	16.5	17.5	16.5	13.5	13.0	11.5	10.0	13.0	12.0	13.5	13.0
4	18.0	16.5	17.5	16.5	13.0	12.5	11.5	10.0	13.0	12.0	13.5	13.0
5	18.0	16.5	17.5	16.0	13.0	12.5	11.5	10.0	13.0	12.5	14.0	13.0
6	18.0	16.5	17.5	16.0	13.0	12.5	11.5	10.0	13.0	12.5	14.0	13.5
7	18.0	16.5	17.5	16.0	13.0	12.5	11.5	10.0	13.0	12.5	14.0	13.5
8	18.5	16.5	17.5	16.0	13.0	12.5	11.5	10.0	13.5	13.0	14.5	14.0
9	18.5	16.5	17.5	16.0	13.0	12.5	11.5	10.0	13.5	13.0	14.5	14.0
10	18.5	16.5	17.0	15.5	13.0	13.0	11.5	10.0	13.0	13.0	14.5	14.0
11	19.0	16.5	17.0	15.5	13.0	12.5	11.0	10.0	13.5	13.0	14.5	14.0
12	19.0	16.0	16.5	15.5	13.0	12.5	11.0	9.5	13.5	13.0	15.0	14.0
13	19.0	16.0	16.5	15.0	13.0	12.0	11.0	9.5	13.5	12.5	15.0	14.0
14	18.5	16.0	16.5	15.0	12.5	12.5	11.5	9.5	13.5	12.5	15.5	14.0
15	18.5	16.0	16.0	15.0	12.5	12.0	11.0	9.5	13.0	12.5	15.5	14.5
16	18.5	16.0	16.0	15.0	12.5	12.0	11.0	9.5	13.0	12.5	15.5	14.5
17	18.0	16.0	16.0	15.0	12.5	12.0	11.5	9.5	13.0	12.5	15.5	14.0
18	18.0	16.0	16.0	14.5	12.5	11.5	11.5	10.0	13.0	12.5	15.5	14.5
19	18.0	16.0	15.5	14.5	12.5	11.5	11.5	10.0	13.0	13.0	15.5	14.5
20	18.0	16.5	15.5	14.5	12.5	11.5	12.0	10.5	13.0	12.5	15.5	14.5
21	18.0	16.0	15.5	14.0	12.5	11.5	12.0	10.5	13.0	12.5	15.5	14.5
22	18.0	16.0	15.0	14.0	12.5	11.5	12.0	10.5	13.0	12.5	15.5	14.0
23	18.0	16.0	15.0	14.0	12.5	11.5	12.0	10.5	13.0	12.0	15.5	14.0
24	18.5	16.0	14.5	13.5	12.0	11.5	12.0	10.5	13.0	12.0	15.5	14.0
25	18.5	16.0	14.5	13.5	12.0	11.0	12.0	11.0	13.0	12.0	15.0	14.0
26	18.5	16.0	14.0	13.5	12.0	11.0	12.5	11.0	13.0	11.5	---	---
27	18.0	16.0	14.0	13.5	11.5	11.0	12.5	11.0	13.0	12.0	---	---
28	18.0	16.0	14.0	13.5	11.5	11.0	12.5	11.0	13.0	12.0	---	---
29	17.5	16.0	14.0	13.5	11.5	11.0	12.5	11.5	---	---	---	---
30	17.5	16.0	14.0	13.5	11.5	10.5	12.5	11.0	---	---	---	---
31	17.0	16.0	---	---	11.5	10.0	13.0	11.0	---	---	---	---
MONTH	19.0	16.0	17.5	13.5	13.5	10.0	13.0	9.5	13.5	11.5	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	16.5	11.5	17.5	15.5	18.0	12.5	19.5	16.0	18.5	16.5
2	---	---	15.0	11.5	17.5	16.0	18.0	13.0	19.0	16.0	18.5	16.5
3	---	---	15.0	11.5	17.5	15.5	18.0	12.5	19.0	16.0	19.0	16.5
4	---	---	14.5	11.5	17.0	16.0	18.0	13.0	19.0	16.5	18.5	16.5
5	---	---	15.0	11.0	17.0	16.0	17.0	13.0	19.0	17.0	18.5	16.5
6	---	---	14.5	11.5	17.0	16.0	---	---	19.0	17.0	18.5	17.0
7	---	---	15.0	11.5	17.5	16.0	---	---	19.0	17.0	19.0	17.0
8	---	---	15.0	11.5	17.5	15.5	---	---	19.0	17.0	18.5	17.0
9	---	---	15.5	12.0	18.0	15.5	17.0	14.5	19.0	17.5	19.0	16.5
10	---	---	15.5	12.0	18.0	15.0	18.0	15.0	19.0	17.5	19.0	16.5
11	---	---	15.0	12.0	18.0	14.0	17.5	15.0	19.0	17.0	19.0	16.5
12	---	---	15.0	12.0	18.0	13.0	17.5	15.0	19.0	17.0	19.0	15.5
13	---	---	15.5	12.5	18.0	12.5	18.0	15.0	19.0	16.5	19.0	15.5
14	14.5	11.5	16.0	12.5	17.5	12.5	18.0	15.0	18.5	16.0	18.5	15.5
15	14.5	11.5	16.0	13.0	17.5	12.5	17.5	15.5	19.0	16.0	18.0	15.5
16	14.5	11.5	15.5	13.0	17.0	12.0	18.0	15.5	19.0	16.0	18.0	15.5
17	14.0	11.5	15.5	13.0	17.5	12.0	18.5	15.0	19.0	16.0	18.0	15.5
18	14.5	12.5	15.5	12.5	17.0	13.0	18.5	15.0	18.5	16.0	18.0	16.0
19	14.5	12.5	15.5	13.5	17.0	12.5	18.5	15.0	18.5	16.0	18.0	15.5
20	14.5	12.5	15.5	14.0	17.0	13.0	19.0	15.5	18.5	16.0	18.0	15.5
21	14.5	12.5	16.0	14.0	17.0	13.5	18.5	15.0	19.0	16.5	18.0	15.5
22	14.5	13.0	16.5	14.0	18.0	13.5	18.5	15.5	19.0	16.0	18.0	15.5
23	14.5	12.5	16.5	14.0	17.5	14.0	18.5	15.5	19.0	16.0	17.5	16.0
24	15.0	12.0	16.5	14.0	18.0	13.5	18.5	15.0	19.5	15.5	18.0	16.0
25	14.5	12.5	16.5	14.0	18.0	13.5	18.5	15.0	19.0	16.0	17.0	16.0
26	15.0	12.5	16.5	14.5	17.5	13.5	18.5	15.0	19.0	16.0	17.5	16.0
27	15.5	12.5	16.5	15.0	17.5	13.0	18.5	15.0	18.5	16.0	17.5	15.5
28	15.0	12.0	17.0	15.0	17.5	13.0	19.0	15.0	18.5	15.5	17.5	15.5
29	16.0	12.0	17.0	15.0	18.0	13.5	18.5	15.5	19.0	15.5	17.5	15.5
30	16.0	12.0	17.0	15.5	18.0	13.0	19.0	15.5	18.5	16.0	17.5	15.0
31	---	---	17.0	15.5	---	---	19.0	15.5	19.0	16.5	---	---
MONTH	---	---	17.0	11.0	18.0	12.0	---	---	19.5	15.5	19.0	15.0

11162720 COLMA CREEK AT SOUTH SAN FRANCISCO, CA

LOCATION.--Lat 37°39'14", long 122°25'31", in Buri Buri Grant, San Mateo County, Hydrologic Unit 18050004, on left bank in Orange Memorial Park, 1.0 mi southwest of South San Francisco Post Office.

DRAINAGE AREA.--10.8 mi^2.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Weter-stage recorder. Datum of gage is 12.53 ft above sea level. Recording rain geges at Skyline College, elevation 700 ft at site 2.9 mi southwest of gaging station, and on San Bruno Mountain, elevation 930 ft et site 2.7 mi northwest of gaging station.

REMARKS.--Records poor. Low flow affected by return flow from urban irrigetion. Channel lowered in 1986.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,560 ft^3/s, Dec. 8, 1987, gage height, 7.53 ft, from reting curve extended above 1,200 ft^3/s on basis of step-backwater computation; no flow Oct. 5, 26, 1963, and many days in August 1985.

EXTREMES FOR CURRENT YEAR.--Peak discherges greater than base discharge of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 28	0650	1,250	4.03	Jan. 12	2205	1,010	3.68
Jan. 1	0355	1,920	5.03	Jan. 15	1615	1,150	3.89
Jan. 6	2305	*3,510	*7.46	Jan. 20	1615	1,220	3.99

Minimum daily, 1.0 ft^3/s, Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	4.5	e1.7	145	6.6	5.1	e4.1	e1.7	3.7	2.8	2.6	1.0
2	2.5	3.8	e127	5.1	7.0	5.9	e1.9	e2.3	3.7	2.8	2.2	2.2
3	1.9	3.3	e1.9	3.5	7.6	11	e2.3	e10	3.5	2.9	2.5	3.0
4	1.7	3.1	e1.9	3.5	6.8	5.0	e9.1	e2.3	3.4	2.3	2.7	3.1
5	2.1	3.0	e6.2	8.9	9.1	5.1	e2.3	e1.9	3.6	e2.3	3.0	2.8
6	e1.5	2.9	e93	228	3.6	5.0	e1.7	e2.3	3.8	e2.0	3.1	2.8
7	e2.8	3.1	e33	84	70	4.8	e2.3	e1.7	3.6	e2.5	2.8	2.5
8	e2.3	3.1	e26	28	19	5.3	e10	e2.3	3.3	e2.3	2.1	2.4
9	e2.3	2.5	143	9.0	7.9	5.7	e2.3	e3.4	3.2	e2.0	2.8	2.2
10	e2.8	2.4	63	9.5	14	6.0	e4.7	e2.3	3.4	1.7	3.3	3.2
11	e2.8	2.3	29	4.7	5.4	5.8	e2.3	e2.3	3.2	1.6	2.5	2.3
12	e2.3	2.3	4.3	106	4.0	6.3	e1.9	e3.4	3.3	1.8	2.5	2.1
13	e2.3	2.3	3.5	235	4.0	7.2	e2.3	e2.3	3.4	1.8	2.7	2.8
14	e2.3	2.1	3.4	61	4.4	10	e2.3	e3.4	3.0	1.6	3.0	4.0
15	e2.3	2.3	3.3	96	6.1	6.6	e3.4	e2.3	3.0	1.5	6.4	2.8
16	e6.0	e1.9	3.6	21	7.8	68	e2.3	e1.9	3.4	1.9	5.2	2.8
17	e2.3	e1.7	25	136	56	36	e24	e2.3	3.6	1.4	5.3	3.2
18	e1.5	e1.9	3.1	56	93	24	e2.3	e1.9	3.2	1.4	6.0	2.8
19	e1.7	e2.3	3.0	17	103	6.9	e3.4	e2.3	3.4	1.8	5.4	3.7
20	e1.5	e15	2.8	135	21	e2.3	e2.3	e2.3	3.3	2.0	5.9	4.8
21	36	e3.0	2.7	59	17	e2.3	e1.9	3.6	3.2	2.0	5.1	3.9
22	e1.7	e10	2.7	19	24	e2.3	e2.3	15	3.5	2.1	6.4	4.8
23	e1.9	e6.3	2.9	12	25	e79	e13	7.1	3.0	2.5	10	5.0
24	e2.3	e5.0	2.7	9.5	8.2	e8.9	e3.4	3.7	3.5	2.0	4.3	6.4
25	e1.9	e3.0	2.7	8.0	9.8	e18	e2.3	3.2	3.4	2.6	7.0	2.5
26	e2.3	e1.9	2.9	6.7	12	e4.1	e1.9	17	3.4	3.0	7.6	1.5
27	e2.3	e2.3	3.6	6.1	5.6	e40	e2.3	9.4	3.9	2.1	5.8	2.5
28	3.6	e1.7	112	5.6	5.8	e3.4	e1.7	3.6	3.5	2.8	4.4	4.5
29	28	e1.9	42	5.5	---	e2.3	e2.3	3.5	2.7	2.4	3.3	8.2
30	4.2	1.9	12	6.3	---	e2.3	e1.9	4.1	2.4	2.7	4.6	11
31	3.8	---	4.2	5.5	---	e42	---	14	---	2.3	3.9	---
TOTAL	142.4	102.8	768.1	1535.4	563.7	436.6	120.2	138.8	100.5	66.9	134.4	106.8
MEAN	4.59	3.43	24.8	49.5	20.1	14.1	4.01	4.48	3.35	2.16	4.34	3.56
MAX	36	15	143	235	103	79	24	17	3.9	3.0	10	11
MIN	1.5	1.7	1.7	3.5	3.6	2.3	1.7	1.7	2.4	1.4	2.1	1.0
AC-FT	282	204	1520	3050	1120	866	238	275	199	133	267	212
a	0.34	0.17	2.95	6.66	2.41	2.01	0.41	0.51	0.20	0.01	0.05	0.05
b	1.46	0.28	6.80	10.07	4.64	2.74	0.57	1.02	0.19	0.00	0.00	0.00

e Estimated.
a Precipitetion, in inches, at San Bruno Mountain gage.
b Precipitation, in inches, et Skyline College gege.

11162720 COLMA CREEK AT SOUTH SAN FRANCISCO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.75	10.6	12.2	19.7	15.7	13.6	5.83	2.38	2.19	2.17	2.13	2.04
MAX	19.3	29.0	28.5	49.5	47.9	51.3	21.0	7.59	10.0	9.81	8.68	7.81
(WY)	1973	1974	1984	1993	1983	1983	1967	1988	1989	1989	1989	1989
MIN	.28	1.14	.93	1.47	.71	1.50	.13	.35	.40	.12	.060	.11
(WY)	1967	1976	1976	1976	1964	1966	1964	1964	1964	1964	1985	1964

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1964 - 1993	
ANNUAL TOTAL	3431.1		4216.6			
ANNUAL MEAN	9.37		11.6		7.74	
HIGHEST ANNUAL MEAN					17.7	1983
LOWEST ANNUAL MEAN					2.33	1964
HIGHEST DAILY MEAN	238	Feb 11	235	Jan 13	820	Jan 4 1982
LOWEST DAILY MEAN	1.1	Apr 25	1.0	Sep 1	.00	Oct 5 1963
ANNUAL SEVEN-DAY MINIMUM	1.6	Apr 25	1.6	Jul 12	.00	Aug 11 1985
INSTANTANEOUS PEAK FLOW			3510	Jan 6	3560	Dec 8 1987
INSTANTANEOUS PEAK STAGE			7.46	Jen 6	7.53	Dec 8 1987
ANNUAL RUNOFF (AC-FT)	6810		8360		5610	
10 PERCENT EXCEEDS	14		24		13	
50 PERCENT EXCEEDS	2.6		3.4		1.8	
90 PERCENT EXCEEDS	1.7		1.9		.59	

11162765 SAN FRANCISCO BAY AT SAN MATEO BRIDGE, NEAR FOSTER CITY, CA

WATER-QUALITY RECORDS

LOCATION.--Lat 37°35'04", long 122°14'59", unsurveyed, T.4 S., R.4 W., in San Mateo County, Hydrologic Unit 18050004, on Pier 20 directly under San Meteo Bridge.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1989 to current year.
WATER TEMPERATURE: October 1989 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1989.

REMARKS.--Interruptions in record were due to malfunction of the sensing and/or recording instruments. Upper probe is set at 5.5 ft below Mean Lower Low Water (MLLW). Lower probe is set at 45.5 ft below MLLW. Daily maximums and minimums sometimes differ from tidal-cycle (24.8 hours) maximums and minimums.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 50,200 microsiemens, Sept. 5, 1990; minimum recorded, 27,400 microsiemens, Mar. 3, 1993.
(Lower probe) Maximum recorded, 50,300 microsiemens, Oct. 31, Nov. 4, 9, 1990; minimum recorded, 28,700 microsiemens, Mar. 5, 1993.
WATER TEMPERATURE: (Upper probe) Maximum recorded, 23.5°C, Aug. 1, 2, 28, 1993; minimum recorded, 6.5°C, on several days in December 1990 and January 1991.
(Lower probe) Maximum recorded, 23.0°C, on several days in August 1990, July 16, 17, 1992, Aug. 2-6, 1993; minimum recorded, 6.5°C, Dec. 30, 1990, to Jan. 2, 1991.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 48,400 microsiemens, Oct. 22, Nov. 2-4; minimum recorded, 27,400 microsiemens, Mar. 3.
(Lower probe) Maximum recorded, 48,400 microsiemens, Oct. 10; minimum recorded, 28,700 microsiemens, Mar. 5.
WATER TEMPERATURE: (Upper probe) Maximum recorded, 23.5°C, Aug. 1, 2, 28; minimum recorded, 8.0°C, Jan. 11.
(Lower probe) Maximum recorded, 23.0°C, Aug. 2-6; minimum recorded, 8.5°C, several days in January.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	48100	47400	48300	47800	47600	47000	46000	44700	32400	29400	30200	27600
2	48100	47400	48400	47800	47400	46600	45900	44500	32200	30300	29800	27700
3	48100	47400	48400	47300	47300	46400	46000	44500	32300	30400	30100	27400
4	48100	47300	48400	47400	47300	46500	45900	44300	32300	31500	29600	28300
5	47900	47200	48000	47200	47400	46800	45800	44500	32900	31800	29800	28100
6	47700	46900	47900	46900	47100	46300	45400	44400	33100	32000	30000	28100
7	47500	45600	47800	46800	46900	46200	45300	43300	34100	32100	30200	28300
8	---	---	47900	46800	47200	45900	44900	43400	33800	32100	30200	28400
9	---	---	47900	46600	46800	45700	44900	43500	34100	32300	30500	28600
10	47200	46700	48000	46600	46500	45700	44700	43400	34000	32400	30700	28700
11	47300	46700	47900	46600	46500	45300	44600	43500	34100	32400	30700	28700
12	47300	46600	47900	46600	46700	45300	44600	43300	34600	32500	31100	28800
13	47400	46600	47900	46500	46700	46000	44000	42000	34300	32700	31300	28800
14	47500	46800	47700	46600	46800	45900	43600	40200	34600	32800	31100	29100
15	47800	47200	47800	46600	46800	46100	43400	40200	35100	32800	31600	28900
16	47900	47300	47700	46700	46900	46200	42800	40200	34900	32800	32200	29000
17	47900	47400	47400	46600	46600	45900	42300	40300	35200	33300	33400	30400
18	47800	47100	47600	46500	46700	45800	41300	38400	35000	33700	33300	30600
19	48000	47100	47600	46900	46800	45800	40600	38500	35100	34000	33800	31000
20	47900	47200	47800	47100	46800	46000	39900	38100	34900	32300	33700	31200
21	48100	47500	47900	47100	46800	46000	39400	37800	34800	31500	33800	31300
22	48400	47600	47700	46800	46700	46100	39100	37400	34800	31900	33900	31300
23	48300	47700	47700	47100	46700	46100	38800	36000	34600	32600	34100	31100
24	48300	47600	47800	47200	46700	46200	38200	34200	34300	32500	33900	31800
25	48200	47600	47800	47300	46700	46200	36700	33000	34300	31900	---	---
26	48200	47600	47700	47100	46700	46300	35800	32100	34000	31500	---	---
27	48300	47700	47600	47200	46800	46200	34300	30900	33000	28900	34500	31800
28	48100	47400	47600	47100	46700	45500	33900	30500	31300	28300	34600	31700
29	48200	47600	47700	47200	46300	45300	33400	30200	---	---	34700	31300
30	48200	47600	47600	47100	46300	45400	33100	29900	---	---	34000	30700
31	48300	47800	---	---	46200	45400	32600	29300	---	---	32600	30400
MONTH	---	---	48400	46500	47600	45300	46000	29300	35200	28300	---	---

11162765 SAN FRANCISCO BAY AT SAN MATEO BRIDGE, NEAR FOSTER CITY, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	32500	31000	35200	30900	39700	38300	---	---	43200	41500	43800	43300
2	32300	31200	35100	31700	---	---	---	---	43400	42000	43800	43100
3	32300	31100	35400	32000	39600	37800	---	---	43200	42100	43800	43100
4	32200	31400	35600	31900	39400	37900	---	---	43200	42200	43800	43100
5	32300	31500	35600	31900	39600	38100	---	---	43300	42200	43800	43100
6	32300	31600	35800	32100	39600	38300	---	---	43200	42400	43600	43000
7	32300	31500	35500	31700	39500	38000	---	---	43200	42400	43700	43100
8	32300	31500	35000	31500	---	---	---	---	43200	42300	43600	43000
9	32400	31700	35500	32600	---	---	---	---	43200	42400	43600	42900
10	32400	31700	35800	33000	---	---	---	---	42900	42400	43600	42800
11	32400	31900	35500	33100	---	---	---	---	42900	42400	43600	42900
12	32400	31800	35900	33100	---	---	---	---	42900	42400	43800	43100
13	32300	31700	36800	33600	---	---	---	---	43200	42600	44000	43100
14	32200	31700	37500	34500	---	---	---	---	43700	42700	43900	43100
15	32300	31600	37800	35100	---	---	---	---	43700	42500	44000	43200
16	32600	31500	37700	35400	---	---	41900	40300	43900	42700	44000	43200
17	33500	31400	37700	35000	---	---	42400	40400	---	---	44000	42600
18	33600	31400	38000	35200	---	---	42100	40400	---	---	44100	43300
19	33500	31800	38100	35500	---	---	42100	40500	---	---	43900	43300
20	33400	31200	38100	35800	---	---	42200	40500	---	---	43800	43000
21	33000	31000	38100	36100	---	---	42200	40700	---	---	43700	43100
22	32500	30100	---	---	---	---	42500	40600	---	---	44000	43100
23	32400	29700	38200	36100	---	---	42400	40800	---	---	44100	43200
24	32700	30400	38400	36400	---	---	42500	41000	---	---	44200	43200
25	33000	30600	38800	36600	---	---	42500	41100	44000	43200	44300	43300
26	33300	30800	39100	37300	---	---	42300	41100	43900	42900	44400	43600
27	33400	30600	39400	37500	---	---	42400	40900	44100	43200	44500	43600
28	33600	30600	39800	38100	---	---	42500	41000	44000	43200	44400	43600
29	34200	30700	39500	38000	---	---	42600	41100	43900	43100	44500	43700
30	34900	30900	39400	38000	---	---	42800	41400	44000	43200	44300	43500
31	---	---	39500	38200	---	---	43000	41500	44000	43300	---	---
MONTH	34900	29700	---	---	---	---	---	---	---	---	44500	42600

11162765 SAN FRANCISCO BAY AT SAN MATEO BRIDGE, NEAR FOSTER CITY, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	48200	47100	48000	47100	47100	46700	45000	44500	34300	33400	33200	30600
2	48100	47000	48000	47000	47000	46800	44800	44300	33600	32300	32700	29900
3	48000	47000	48100	47000	46900	46400	44800	43900	33100	32500	31700	29500
4	48100	47100	48000	47200	46900	46400	44700	43900	33900	32500	30700	29100
5	48200	47000	48100	47800	46800	46300	44600	43600	34700	32600	30300	28700
6	48100	47000	48100	47800	46700	46500	44400	43600	34800	32700	30500	28800
7	48100	47300	48100	47600	46600	46100	44400	43300	35400	32800	30800	28900
8	---	---	48000	47500	46600	45900	44000	42800	35500	33200	30800	29100
9	---	---	48000	47400	46500	45800	43900	42600	35400	33200	31000	29000
10	48400	47600	48100	46900	46400	45800	43800	42600	35400	33200	31500	29000
11	48300	47400	48100	47400	46300	45400	43600	42700	35900	33500	31500	29000
12	48300	47400	48000	47400	46200	45100	43500	42800	35800	33400	31800	29100
13	48200	47300	48100	47200	46300	45200	43700	42800	35800	33400	32300	29300
14	48000	47300	48000	47400	46300	45400	43300	41800	36200	33700	32600	29500
15	48100	47100	48000	47300	46300	45500	42900	41700	36400	33700	33400	29700
16	48100	47100	47900	47400	46200	45700	42600	41500	36300	33600	34100	30200
17	48100	47000	47800	47300	46300	45600	42000	41100	36200	34200	34900	32100
18	48000	47000	47800	47200	46000	45300	41500	39800	36100	34900	34900	32100
19	48000	46900	47800	47400	46100	45100	40500	39200	36000	34900	34400	31900
20	48000	47000	47600	47000	46100	45200	39700	38500	35800	34000	34200	31900
21	47900	47000	47600	46900	46100	45100	39200	38000	35700	33500	34300	31900
22	48000	47000	47600	46800	46300	45200	39000	38100	35600	33800	34400	31900
23	48100	47400	47500	46800	46100	45300	38600	36800	35500	33700	34600	32100
24	48000	47600	47400	46700	46000	45200	38000	36600	35100	33400	34500	32400
25	48000	47100	47300	46700	45900	45300	37200	36000	34900	33200	---	---
26	48100	47300	47300	46700	45800	45200	36500	35600	34500	33500	---	---
27	48100	47100	47300	46700	45700	45300	35900	35100	34200	32800	34500	31700
28	48100	47400	47200	46700	45700	44900	35400	34600	33700	31600	34300	32800
29	48100	47200	47200	46700	45600	45200	35300	34700	---	---	34200	31000
30	48000	47200	47100	46500	45300	45000	35000	34200	---	---	34200	31600
31	48000	47100	---	---	45300	44800	34700	33700	---	---	32600	30600
MONTH	---	---	48100	46500	47100	44800	45000	33700	36400	31600	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	31400	30300	36200	32200	40000	37800	38200	36900	43400	41500	44100	43400
2	30900	30200	36000	32700	---	---	38500	36800	43900	41800	44200	43400
3	30600	29900	36300	32700	39500	37200	38500	37000	43100	41700	44000	43300
4	30400	29700	36300	32300	39400	37200	38500	36900	43100	41900	44000	43300
5	30200	29400	36400	32000	39300	37100	38500	37100	43400	42000	43900	43100
6	30100	29200	36600	32100	39000	37000	38700	37200	43000	42000	43800	43100
7	30000	29100	36700	32400	38900	36700	38500	37200	43100	42100	43900	43300
8	29900	29000	36200	32300	38700	36800	38600	37400	43200	42000	43900	43400
9	30000	29100	36600	32900	38600	36800	38800	37600	43200	42100	44200	43300
10	30000	29200	37200	33600	38600	36600	39000	37700	43000	42100	44100	43200
11	29900	29100	37400	33700	38100	36800	39100	37800	43300	42200	43900	43100
12	29900	29100	37300	33900	37700	36800	39100	37900	43600	42300	44100	43100
13	29900	29000	38000	35200	37500	36700	39200	37900	43700	42600	44100	42900
14	29900	29100	38800	36200	37100	36700	39300	38000	44500	42500	44000	43000
15	31600	29100	38700	36100	37200	36200	40200	37600	44100	42600	44100	42900
16	31700	29100	38500	36100	37000	36700	40600	38700	44200	42700	43900	43000
17	33700	29400	38600	35600	37000	36700	41200	38900	---	---	43800	43000
18	33100	29500	39000	35800	37000	36800	41100	38900	---	---	43800	42900
19	33700	30000	39000	36300	37000	36700	41100	39000	---	---	43800	42400
20	33700	30900	39000	36600	36900	36700	41400	39300	---	---	43700	42900
21	33600	30700	39000	36600	36900	36500	41400	39500	---	---	43700	42700
22	33000	30300	---	---	36900	36500	42100	39800	---	---	43700	42800
23	33500	30000	39100	36400	37000	36700	42200	40000	---	---	43700	42900
24	33800	30700	39700	36600	37500	36800	42200	40500	---	---	43700	42900
25	33900	30700	39600	36900	37800	36900	42100	40900	44300	43300	43800	43000
26	33900	30800	40100	37600	37600	36900	42200	40800	44300	43300	43800	43100
27	34000	30700	40300	38400	37800	36800	42200	40700	44300	43400	43800	43200
28	35100	30900	40000	38500	37800	36700	42500	40800	44200	43400	43800	43200
29	35200	31200	39900	38400	37900	36800	42600	40900	44200	43400	43900	43300
30	36100	31900	39800	38300	38000	36700	43000	41000	44200	43400	43900	43200
31	---	---	39900	38000	---	---	43200	41200	44100	43400	---	---
MONTH	36100	29000	---	---	---	---	43200	36800	---	---	44200	42400

11162765 SAN FRANCISCO BAY AT SAN MATEO BRIDGE, NEAR FOSTER CITY, CA-Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.0	20.5	18.5	18.0	13.5	13.0	9.5	9.5	11.0	10.5	12.0	11.5
2	21.0	20.5	18.5	18.0	13.0	13.0	9.5	9.0	11.0	10.5	12.5	11.5
3	20.5	20.0	18.5	18.0	13.0	13.0	9.5	9.0	11.0	10.5	13.0	11.5
4	21.0	20.0	18.5	18.0	13.0	12.5	9.5	9.0	11.0	10.5	13.0	12.0
5	21.0	20.0	18.5	18.0	12.5	12.5	9.0	8.5	11.5	11.0	13.0	12.0
6	21.0	20.0	18.5	18.0	12.5	12.0	9.0	8.5	11.5	11.0	13.5	12.5
7	21.5	20.0	18.5	18.0	12.5	12.0	9.0	8.5	11.5	11.0	14.0	12.5
8	---	---	18.0	17.5	12.0	12.0	9.0	8.5	11.5	11.0	14.0	13.0
9	---	---	18.0	17.5	12.5	12.0	9.0	8.5	11.5	11.5	14.5	13.0
10	21.5	20.5	17.5	17.0	12.5	12.5	9.0	8.5	11.5	11.0	14.5	13.5
11	21.5	20.5	17.0	16.5	12.5	12.0	9.0	8.0	12.0	11.5	14.5	13.5
12	21.5	20.5	17.0	16.5	12.5	12.0	8.5	8.5	12.0	11.5	15.0	14.0
13	21.0	20.0	17.0	16.5	12.0	11.5	9.0	8.5	12.0	11.5	15.5	14.5
14	21.0	20.0	17.0	16.0	12.0	11.5	9.5	9.0	12.0	11.5	15.5	14.5
15	20.5	20.0	16.5	16.0	11.5	11.5	9.5	9.0	12.0	11.5	16.0	15.0
16	20.5	20.0	16.5	16.0	11.5	11.0	9.5	9.0	12.0	11.5	15.5	15.0
17	20.0	19.5	16.0	16.0	11.5	11.0	9.5	9.0	12.0	11.5	15.5	15.0
18	20.0	19.5	16.0	16.0	11.0	10.5	9.5	9.0	12.0	11.5	16.0	15.0
19	20.0	19.5	16.0	15.5	11.0	10.5	9.5	9.0	12.0	11.5	16.0	15.0
20	20.0	19.5	15.5	15.0	11.0	10.5	10.0	9.5	12.0	11.5	16.0	15.0
21	20.0	19.5	15.0	14.5	11.0	10.5	10.5	9.5	12.0	11.5	16.0	15.5
22	20.0	19.5	15.0	14.5	11.0	10.5	10.5	9.5	11.5	11.5	16.5	15.5
23	20.0	19.5	14.5	14.0	10.5	10.5	10.5	9.5	11.5	11.5	16.0	15.5
24	20.0	19.5	14.5	14.0	10.5	10.5	10.5	9.5	11.5	11.0	16.5	15.5
25	20.0	19.5	14.0	13.5	10.5	10.0	10.5	9.5	11.5	11.0	---	---
26	20.0	19.5	14.0	13.5	10.0	10.0	10.5	10.0	11.0	11.0	---	---
27	20.0	19.5	14.0	13.5	10.0	9.5	10.5	10.0	12.0	10.5	---	---
28	19.5	19.0	14.0	13.5	10.0	9.5	10.5	10.0	12.0	11.0	15.5	14.5
29	19.0	18.5	14.0	13.5	9.5	9.5	11.0	10.0	---	---	15.5	15.0
30	19.0	18.5	13.5	13.0	9.5	9.5	11.0	10.0	---	---	16.0	14.5
31	18.5	18.0	---	---	9.5	9.5	11.0	10.0	---	---	16.5	15.0
MONTH	---	---	18.5	13.0	13.5	9.5	11.0	8.0	12.0	10.5	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	15.0	19.0	17.0	20.0	19.0	22.5	20.0	23.5	21.5	22.5	21.5
2	16.0	15.0	18.5	17.0	19.5	19.0	22.5	20.0	23.5	21.5	22.5	22.0
3	16.0	15.5	18.0	16.5	20.0	19.0	22.0	20.0	23.0	22.0	22.5	21.5
4	16.5	15.5	18.0	16.5	19.5	18.5	22.0	20.0	23.0	22.0	22.0	21.5
5	16.5	15.5	18.0	16.5	19.0	18.5	22.0	20.0	23.0	22.5	22.0	21.0
6	16.5	15.5	17.5	16.5	18.5	18.5	22.0	20.5	23.0	22.5	21.5	21.0
7	17.0	15.5	17.5	16.5	18.5	18.0	22.0	21.0	22.5	22.0	21.5	21.0
8	16.5	16.0	17.5	16.5	19.0	18.5	22.0	21.5	22.0	22.0	21.5	21.0
9	17.0	16.0	18.0	16.5	19.0	18.5	22.5	21.5	22.0	21.5	21.5	20.5
10	17.0	16.0	19.0	17.0	19.0	18.5	22.5	21.5	21.5	21.5	21.5	20.5
11	16.5	16.5	17.5	17.0	19.5	18.0	22.5	21.5	21.5	21.0	21.5	20.5
12	16.5	16.0	17.5	16.5	19.5	18.5	22.5	21.5	21.5	20.5	21.0	20.0
13	16.5	16.0	17.0	16.5	19.5	18.5	22.5	21.5	21.0	20.5	21.0	20.0
14	16.5	16.0	17.5	16.5	20.0	18.5	22.5	21.0	21.0	20.0	21.0	19.5
15	16.5	16.0	17.5	16.5	20.5	18.5	22.5	20.5	21.0	20.0	20.5	19.5
16	16.5	16.0	18.0	16.5	20.5	19.0	22.0	20.5	21.5	20.0	20.5	19.5
17	16.5	15.5	18.5	17.0	21.0	19.5	22.0	20.0	---	---	20.0	19.0
18	17.0	15.5	19.0	17.0	21.5	19.5	22.0	20.0	---	---	20.0	19.0
19	17.0	15.5	18.5	17.0	21.5	20.5	22.0	20.0	---	---	19.5	19.0
20	17.0	15.5	18.5	17.5	22.0	20.5	21.5	20.0	---	---	19.5	19.0
21	17.0	16.0	19.0	18.0	22.0	20.5	21.5	20.0	---	---	19.5	19.0
22	17.0	16.0	19.5	18.0	21.0	20.5	21.0	20.0	---	---	19.5	19.0
23	17.0	16.0	19.5	18.5	20.5	20.0	21.5	20.0	---	---	19.5	19.0
24	17.0	16.0	19.5	19.0	21.0	20.0	21.5	20.0	---	---	19.5	19.0
25	17.0	16.0	19.5	18.5	21.5	20.5	21.5	20.5	22.0	21.0	20.5	19.0
26	17.0	16.5	19.0	18.0	22.0	21.0	22.0	21.0	23.0	21.0	20.5	19.0
27	17.0	16.5	18.5	18.0	22.0	20.5	22.5	21.0	23.0	21.0	20.5	19.0
28	17.5	16.5	19.5	18.0	22.0	20.5	22.0	21.0	23.5	21.5	20.5	19.0
29	18.0	17.0	19.5	18.5	22.0	20.0	22.0	21.0	23.0	21.5	20.0	19.0
30	18.5	17.0	19.0	18.5	22.5	20.0	22.0	21.0	23.0	21.5	20.5	19.0
31	---	---	19.5	18.5	---	---	23.0	21.0	23.0	21.5	---	---
MONTH	18.5	15.0	19.5	16.5	22.5	18.0	23.0	20.0	---	---	22.5	19.0

11162765 SAN FRANCISCO BAY AT SAN MATEO BRIDGE, NEAR FOSTER CITY, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.0	20.5	18.5	18.0	13.5	13.5	9.5	9.5	10.5	10.5	11.5	11.0
2	21.0	20.5	18.5	18.5	13.5	13.0	9.5	9.0	10.5	10.5	11.5	11.0
3	20.5	20.0	18.5	18.0	13.0	13.0	9.5	9.0	11.0	10.5	12.5	11.5
4	20.5	20.0	18.5	18.0	13.0	13.0	9.5	9.0	11.0	10.5	12.5	11.5
5	20.5	20.0	18.5	18.0	13.0	12.5	9.0	9.0	11.0	10.5	13.0	12.0
6	20.5	20.0	18.5	18.0	13.0	12.5	9.0	8.5	11.5	11.0	13.0	12.5
7	21.0	20.0	18.5	18.0	12.5	12.5	9.0	8.5	11.5	11.0	13.5	12.5
8	---	---	18.0	17.5	12.5	12.0	9.0	8.5	11.5	11.0	14.0	13.0
9	---	---	18.0	17.0	12.5	12.0	9.0	8.5	11.5	11.5	14.0	13.5
10	21.0	20.5	17.5	16.5	12.5	12.5	9.0	8.5	11.5	11.5	14.5	13.5
11	21.5	20.5	17.5	16.0	12.5	12.5	8.5	8.5	11.5	11.5	14.5	13.5
12	21.5	20.5	17.0	16.0	12.5	12.0	8.5	8.5	12.0	11.5	14.5	14.0
13	21.0	20.0	17.0	16.0	12.0	11.5	8.5	8.5	12.0	11.5	15.0	14.5
14	21.0	19.5	16.5	16.0	12.0	11.5	9.0	8.5	12.5	11.5	15.0	14.5
15	20.5	19.5	16.5	16.0	11.5	11.5	9.0	9.0	12.0	11.5	15.5	14.5
16	20.0	19.5	16.5	16.0	11.5	11.0	9.0	9.0	12.0	11.5	15.5	15.0
17	20.0	19.5	16.5	16.0	11.5	11.0	9.0	9.0	12.0	11.5	15.5	15.0
18	20.0	19.5	16.0	16.0	11.0	10.5	9.5	9.0	12.0	11.5	15.5	15.0
19	19.5	19.0	16.0	15.5	11.0	10.5	9.5	9.0	12.0	11.5	15.5	15.0
20	19.5	19.0	15.5	14.5	11.0	10.5	9.5	9.0	12.0	11.5	16.0	15.0
21	20.0	19.5	15.0	14.5	11.0	10.5	10.0	9.5	12.0	11.5	16.0	15.0
22	19.5	19.0	15.0	14.5	10.5	10.5	10.0	9.5	11.5	11.5	16.0	15.5
23	20.0	19.0	14.5	14.0	10.5	10.5	10.0	9.5	11.5	11.5	16.0	15.5
24	20.0	19.5	14.5	13.5	10.5	10.5	10.0	9.5	11.5	11.0	16.0	15.5
25	20.0	19.0	14.5	13.5	10.5	10.0	10.0	10.0	11.5	11.0	---	---
26	20.0	19.5	14.0	13.5	10.0	9.5	10.0	10.0	11.0	11.0	---	---
27	20.0	19.5	14.0	13.5	10.0	9.5	10.5	10.0	11.0	11.0	---	---
28	19.5	19.0	14.0	13.5	10.0	9.5	10.5	10.0	11.0	11.0	15.0	15.0
29	19.0	18.5	14.0	13.5	9.5	9.5	10.5	10.0	---	---	15.5	15.0
30	18.5	18.5	13.5	13.5	9.5	9.5	10.5	10.5	---	---	15.5	15.0
31	18.5	18.5	---	---	9.5	9.5	10.5	10.5	---	---	15.5	15.0
MONTH	---	---	18.5	13.5	13.5	9.5	10.5	8.5	12.5	10.5	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	15.5	17.5	16.5	19.5	19.0	22.5	20.0	22.5	21.0	22.5	21.5
2	16.0	15.0	18.5	16.5	20.0	19.0	22.5	19.5	23.0	21.5	22.5	21.5
3	16.0	15.5	18.0	16.5	20.0	19.0	22.0	19.5	23.0	22.0	22.5	21.5
4	16.0	15.5	17.5	16.0	19.5	18.5	22.0	19.5	23.0	22.5	22.0	21.0
5	16.0	15.5	17.5	16.0	19.0	18.5	22.0	20.0	23.0	22.5	22.0	21.0
6	16.0	15.5	17.5	16.5	19.0	18.5	22.0	20.5	23.0	22.0	21.5	21.0
7	16.5	15.5	17.0	16.5	19.0	18.0	22.0	20.5	22.5	22.0	21.5	20.5
8	16.5	15.5	17.0	16.0	19.0	18.5	22.0	21.5	22.0	22.0	21.5	20.5
9	16.5	16.0	17.5	16.0	19.0	18.0	22.0	21.5	22.0	21.5	21.5	20.5
10	16.5	16.0	17.5	16.5	19.5	18.5	22.0	21.5	22.0	21.5	21.5	20.5
11	16.5	16.0	17.5	16.5	19.0	18.0	22.0	21.5	21.5	21.0	21.5	20.0
12	16.5	16.0	17.0	16.5	19.0	18.0	22.0	21.5	21.0	20.5	21.0	19.5
13	16.0	16.0	16.5	16.0	19.0	18.5	22.5	21.5	21.0	20.5	21.0	19.5
14	16.0	16.0	16.5	15.5	20.0	18.5	22.5	21.0	21.0	20.0	21.0	19.5
15	16.5	15.0	17.0	16.0	20.5	18.5	22.5	20.5	21.0	20.0	20.5	19.5
16	16.5	15.5	17.0	16.5	20.0	19.0	22.0	20.0	21.0	20.0	20.5	19.5
17	16.0	14.5	17.5	16.5	20.5	19.0	22.0	19.5	---	---	20.0	19.0
18	15.5	14.5	17.5	17.0	21.0	19.5	22.0	19.5	---	---	20.0	19.0
19	16.0	14.5	18.0	17.0	22.0	20.0	22.0	20.0	---	---	19.5	19.0
20	16.0	15.0	18.5	17.5	22.5	21.0	21.5	20.0	---	---	19.5	19.0
21	16.5	15.0	19.0	18.0	22.0	20.0	21.5	20.0	---	---	19.5	19.0
22	16.5	15.5	19.5	18.0	21.0	19.5	21.5	20.0	---	---	19.5	19.0
23	16.5	15.5	19.5	18.5	20.5	19.5	21.0	20.0	---	---	19.5	18.5
24	16.5	15.5	19.5	18.5	21.0	20.0	21.5	20.0	---	---	19.5	18.5
25	16.5	16.0	19.5	18.0	21.5	20.0	21.5	20.5	22.0	20.5	19.5	18.5
26	17.0	16.0	19.0	18.0	21.5	20.5	21.5	21.0	22.0	21.0	19.5	19.0
27	17.0	16.5	18.5	17.5	22.0	21.0	22.0	21.0	22.0	21.0	19.5	19.0
28	17.0	16.0	19.0	18.0	22.0	20.5	22.0	21.0	22.5	21.5	20.0	19.0
29	17.5	16.5	19.0	18.5	22.0	20.0	22.0	21.0	22.5	21.5	20.0	19.0
30	17.5	16.5	19.0	18.5	22.5	19.5	22.0	21.0	22.5	21.5	20.0	19.0
31	---	---	19.5	18.5	---	---	22.0	21.0	22.5	21.5	---	---
MONTH	17.5	14.5	19.5	15.5	22.5	18.0	22.5	19.5	---	---	22.5	18.5

11162800 REDWOOD CREEK AT REDWOOD CITY, CA

LOCATION.--Lat 37°26'58", long 122°13'57", in Pulgas Grant, San Mateo County, Hydrologic Unit 18050004, at Menlo Country Club, on right benk 200 ft upstream from Alameda de Las Pulgas Bridge end 2.5 mi south of Redwood City Old Post Office.

DRAINAGE AREA.--1.82 mi^2.

PERIOD OF RECORD.--September 1959 to current year.

REVISED RECORDS.--WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 83.92 ft above sea level.

REMARKS.--Records fair. Low flow at times affected by return flow from urban irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 644 ft^3/s, Jan. 31, 1963, gage height, 9.36 ft, from rating curve extended above 180 ft^3/s on basis of slope-area measurement of peak flow and computation of peak flow through culvert; maximum gage height, 11.55 ft, Nov. 29, 1970 (backwater from culvert trash racks); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater then base discharge of 130 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 1	0530	144	4.42	Jan. 13	1430	*277	*5.97

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.06	.03	31	.72	1.9	.33	.34	.07	.00	.00	.00
2	.01	1.7	1.3	4.1	.74	1.7	.28	.34	.04	.00	.00	.00
3	.01	4.5	.52	1.5	2.0	1.8	.26	.66	.03	.00	.01	.00
4	.01	5.0	.10	.97	2.6	1.3	.24	.45	.41	.00	.01	.00
5	.01	1.6	.07	.87	1.1	1.2	.24	.36	.23	.00	.00	.00
6	.01	.07	9.7	17	2.2	1.1	.24	.37	.05	.00	.00	.00
7	.01	.03	1.6	26	1.3	1.1	.22	.26	.04	.00	.00	.00
8	.01	.03	2.7	9.2	1.3	.97	e.20	.23	.04	.00	.00	.00
9	.01	.03	8.7	3.8	1.3	.88	e.18	.20	.03	.00	.00	.00
10	.01	.02	8.1	2.9	1.3	.86	e.17	.17	.03	.00	.00	.00
11	.01	.03	7.2	1.8	1.3	.84	e.12	.13	.03	.00	.01	.00
12	.01	.03	1.2	29	1.7	.81	e.12	.16	.03	.00	.01	.00
13	.01	.03	.52	97	2.1	.77	e.11	.11	.03	.00	.01	.00
14	.01	.03	.33	19	1.7	.73	e.11	.10	.01	.00	.01	.00
15	.01	.03	.28	8.6	1.5	.67	e.10	.12	.01	.00	.01	.00
16	.01	.03	.20	5.6	1.3	1.1	.38	.11	.01	.00	.02	.00
17	.01	.03	1.2	19	2.1	2.4	2.4	.14	.00	.00	.00	.00
18	.01	.03	.34	20	18	.82	.37	.15	.01	.00	.00	.00
19	.01	.04	.22	6.1	33	.70	.33	.13	.00	.00	.01	.00
20	.01	.04	.19	25	11	.65	e.25	.08	.00	.00	.01	.00
21	.01	.04	.17	17	5.1	.60	e.23	.07	.00	.00	.00	.00
22	.01	.07	.18	9.1	3.4	.60	e.20	.14	.00	.00	.00	.00
23	.01	.03	.17	3.9	8.5	2.3	e.18	.18	.00	.00	.00	.00
24	.01	.03	.15	2.8	3.8	1.4	e.18	.26	.00	.00	.00	.00
25	.01	.03	.15	1.6	3.8	3.5	e.18	.83	.00	.00	.02	.00
26	.01	.03	.13	1.0	20	6.8	.30	.14	.00	.00	.01	.00
27	.01	.03	.14	.93	4.1	2.6	.32	.12	.00	.00	.00	.00
28	.01	.03	21	.86	2.6	.96	.32	.05	.00	.00	.00	.00
29	7.6	.03	18	.86	---	.50	.36	.05	.00	.00	.00	.00
30	.48	.03	6.3	.86	---	.29	.35	.11	.00	.00	.00	.00
31	.06	---	1.5	.84	---	.34	---	.37	---	.00	.00	---
TOTAL	8.42	13.71	92.39	368.19	139.56	42.19	9.27	6.93	1.10	0.00	0.14	0.00
MEAN	.27	.46	2.98	11.9	4.98	1.36	.31	.22	.037	.000	.005	.000
MAX	7.6	5.0	21	97	33	6.8	2.4	.83	.41	.00	.02	.00
MIN	.01	.02	.03	.84	.72	.29	.10	.05	.00	.00	.00	.00
AC-FT	17	27	183	730	277	84	18	14	2.2	.00	.3	.00

e Estimated.

11162800 REDWOOD CREEK AT REDWOOD CITY, CA --Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.23	.81	1.68	3.70	3.42	2.52	.94	.22	.086	.040	.031	.038
MAX	2.93	4.84	7.44	13.0	13.9	11.5	4.90	1.26	.32	.15	.10	.17
(WY)	1963	1974	1971	1967	1986	1983	1982	1983	1983	1983	1983	1982
MIN	.000	.003	.052	.065	.11	.18	.015	.003	.000	.000	.000	.000
(WY)	1960	1960	1960	1991	1977	1988	1977	1962	1961	1961	1961	1961

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1960 - 1993	
ANNUAL TOTAL	398.12		681.90			
ANNUAL MEAN	1.09		1.87		1.13	
HIGHEST ANNUAL MEAN					3.67	1983
LOWEST ANNUAL MEAN					.096	1961
HIGHEST DAILY MEAN	47	Feb 12	97	Jan 13	211	Jan 21 1967
LOWEST DAILY MEAN	.01	Jul 1	.00	Jun 17	.00	Oct 1 1959
ANNUAL SEVEN-DAY MINIMUM	.01	Jul 14	.00	Jun 19	.00	Oct 1 1959
INSTANTANEOUS PEAK FLOW			277	Jan 13	644	Jan 31 1963
INSTANTANEOUS PEAK STAGE			5.97	Jan 13	11.55	Nov 29 1970
ANNUAL RUNOFF (AC-FT)	790		1350		821	
10 PERCENT EXCEEDS	1.8		3.8		1.6	
50 PERCENT EXCEEDS	.07		.10		.10	
90 PERCENT EXCEEDS	.01		.00		.00	

11164500 SAN FRANCISQUITO CREEK AT STANFORD UNIVERSITY, CA

LOCATION.--Lat 37°25'24", long 122°11'18", in San Francisquito Grant, Santa Clara County, Hydrologic Unit 18050003, at golf course on right bank 1.1 mi downstream from Los Trancos Creek, 1.1 mi west of Stanford Univeraity Post Office, and 5 mi downstream from Searsville Lake.

DRAINAGE AREA.--37.4 mi^2.

PERIOD OF RECORD.--October 1930 to September 1941, October 1950 to current year. Monthly diacharge only for aome periods, published in WSP 1315-B.

GAGE.--Water-atage recorder and concrete control. Datum of gage is 115.75 ft above aea level. Recording rain gege at 345 Middlefield Road in Menlo Park, 2.5 mi northeast of gage.

REMARKS.--No estimated daily diacharges. Records good. Flow slightly regulated by Searaville Lake, capacity, 952 acre-ft. Diversions of about 800 acre-ft each year upstream from stetion to Los Trancoa and Lagunita Canals for irrigation on Stanford University Campus downstream from station. Low flow affected by waatewater from Stanford Lineer Accelerator.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft^3/s, Dec. 22, 1955, gage height, 13.60 ft; no flow at timea.

EXTREMES FOR CURRENT YEAR.--Peak discherges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Dete	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 13	0715	*3,010	*8.51	Feb. 19	2200	1,070	4.80
Jan. 20	2000	1,200	5.07	Feb. 26	0545	786	4.15

Minimum deily, 0.08 ft^3/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.31	.62	220	20	78	34	7.4	5.3	.89	.19	.21
2	.11	.23	2.2	56	13	67	29	6.9	4.5	.85	.16	.23
3	.13	.21	2.9	24	12	64	26	6.4	4.2	.92	.15	.16
4	.11	.15	.80	16	18	59	27	6.5	4.9	.83	.22	.13
5	.12	.18	.42	12	22	51	27	5.3	6.2	.88	.25	.14
6	.11	.44	23	45	20	44	25	4.9	5.2	.95	.28	.17
7	.28	.69	10	362	21	40	20	4.5	4.9	.99	.30	.17
8	.28	.50	2.9	182	33	37	17	4.1	4.6	.93	.32	.14
9	.31	.34	28	71	58	34	14	4.0	4.3	.93	.27	.14
10	.32	.31	32	44	38	30	13	3.8	3.6	.89	.27	.19
11	.42	.36	31	29	48	26	13	3.5	4.7	.83	.32	.22
12	.45	.38	8.3	119	32	25	12	3.9	4.3	.78	.34	.24
13	.42	.37	3.2	1620	27	24	12	4.2	3.6	.72	.33	.25
14	.39	.33	2.4	463	24	23	11	4.1	3.1	.63	.34	.20
15	.39	.24	2.2	178	22	21	11	4.1	2.7	.59	.35	.29
16	.30	.26	1.9	138	21	21	11	4.2	2.7	.57	.34	.28
17	.34	.28	3.1	268	25	37	28	4.0	2.3	.50	.25	.29
18	.51	.26	3.1	344	91	31	26	4.4	1.9	.48	.17	.40
19	.52	.31	1.8	147	630	27	18	4.4	1.5	.41	.22	.31
20	.54	.40	1.6	435	465	24	14	4.3	1.4	.49	.24	.38
21	.80	.36	1.5	440	184	21	13	4.1	1.4	.50	.28	.30
22	.79	.61	1.5	404	123	19	11	3.8	1.3	.46	.31	.31
23	.82	.51	1.5	154	250	30	11	3.7	1.2	.47	.18	.32
24	.66	.54	1.4	96	167	45	12	4.0	1.1	.45	.13	.28
25	.35	.58	1.4	70	122	38	11	5.5	1.0	.41	.13	.26
26	.56	.55	1.4	57	428	143	10	5.0	1.0	.52	.12	.26
27	.66	.63	1.4	56	157	79	8.7	5.4	.92	.57	.12	.20
28	.76	.73	58	41	103	67	8.5	5.5	.89	.60	.16	.24
29	12	.70	82	56	---	44	5.9	4.5	1.0	.41	.26	.28
30	2.9	.61	49	34	---	33	6.2	4.2	.90	.34	.22	.25
31	.72	---	27	28	---	31	---	6.7	---	.23	.22	---
TOTAL	27.15	12.37	387.54	6209	3174	1313	485.3	147.3	86.61	20.02	7.44	7.24
MEAN	.88	.41	12.5	200	113	42.4	16.2	4.75	2.89	.65	.24	.24
MAX	12	.73	82	1620	630	143	34	7.4	6.2	.99	.35	.40
MIN	.08	.15	.42	12	12	19	5.9	3.5	.89	.23	.12	.13
AC-FT	54	25	769	12320	6300	2600	963	292	172	40	15	14
a	1.46	0.04	4.97	6.79	3.38	3.13	0.20	0.17	0.14	0	0	0

a Precipitation, in inches.

11164500 SAN FRANCISQUITO CREEK AT STANFORD UNIVERSITY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.96	5.91	23.9	54.4	68.7	50.4	25.6	2.94	.70	.33	.22	.28
MAX	28.2	91.9	220	250	409	315	232	39.5	8.22	3.30	1.61	2.11
(WY)	1963	1951	1956	1952	1986	1983	1958	1983	1983	1983	1983	1973
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1931 - 1993	
ANNUAL TOTAL	4455.25		11876.97			
ANNUAL MEAN	12.2		32.5		19.3	
HIGHEST ANNUAL MEAN					83.4	1983
LOWEST ANNUAL MEAN					.000	1931
HIGHEST DAILY MEAN	796	Feb 12	1620	Jan 13	2650	Dec 23 1955
LOWEST DAILY MEAN	.04	May 18	.08	Oct 1	.00	Oct 1 1930
ANNUAL SEVEN-DAY MINIMUM	.10	Aug 18	.13	Oct 1	.00	Oct 1 1930
INSTANTANEOUS PEAK FLOW			3010	Jan 13	5560	Dec 22 1955
INSTANTANEOUS PEAK STAGE			8.51	Jan 13	13.60	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	8840		23560		13970	
10 PERCENT EXCEEDS	25		61		31	
50 PERCENT EXCEEDS	.74		2.7		.34	
90 PERCENT EXCEEDS	.14		.23		.00	

11166000 MATADERO CREEK AT PALO ALTO, CA

LOCATION.--Lat 37°25'18", long 122°08'04", in Rincon de San Francisquito Grant, Santa Clara County, Hydrologic Unit 18050003, on right bank on Ash Street 150 ft upstream from Lambert Avenue Bridge and 2.1 mi southeast of Palo Alto Post Office.

DRAINAGE AREA.--7.26 mi^2.

PERIOD OF RECORD.--July 1952 to April 1991, June 1992 to current year.

REVISED RECORDS.--WDR CA-80-2: 1971, 1973-74, 1978, 1971-75(P). WDR CA-82-2: 1973-74(P), 1978(P).

GAGE.--Water-stage recorder. Datum of gage is 17.01 ft above sea level. Prior to Sept. 25, 1958, at site 150 ft downstream at different datum. Prior to Apr. 9, 1991 at same site, different datum.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,500 ft^3/s, Jan. 24, 1983, gage height, 6.51 ft, datum then in usa; maximum gage height, 9.88 ft, Dec. 23, 1955, site and datum then in use (backwater from culvert); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 13	0445	389	4.97	Feb. 19	0600	338	4.79
Feb. 26	0300	*474	*5.26				

Minimum daily, 0.03 ft^3/s, Nov. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	.07	.24	51	1.7	5.7	3.1	.66	.43	.16	.30	.14
2	.40	.11	3.8	6.4	1.7	5.1	2.8	.52	.26	.24	.28	.18
3	.34	.08	1.2	3.8	1.8	5.7	2.7	.52	.26	.18	.17	.17
4	.23	.07	.23	3.2	1.7	3.6	2.7	.60	1.0	.21	.17	.14
5	.09	.03	.25	3.9	1.7	3.2	2.0	.60	.63	.18	.17	.14
6	.13	.05	26	21	1.3	3.1	1.9	.42	.19	.11	.17	.15
7	.13	.06	4.9	41	3.7	3.0	1.9	.35	.17	.18	.18	.14
8	.09	.54	.76	13	6.0	2.8	1.7	.31	.10	.24	.18	.12
9	.15	.11	4.9	6.2	4.0	2.7	1.7	.26	.07	.24	.19	.13
10	.13	.05	16	5.6	2.5	2.6	1.6	.14	.11	.27	.18	.14
11	.16	.16	4.6	3.7	8.7	2.5	1.5	.11	.10	.28	.15	.17
12	.16	.06	.77	45	2.1	2.4	1.5	.14	.10	.26	.22	.16
13	.11	.08	.34	181	1.8	2.3	1.4	.24	.11	.11	.26	.15
14	.09	.08	.32	28	1.7	2.3	1.4	.24	.12	.17	.27	.17
15	.08	.10	.36	15	2.3	2.1	1.4	.24	.15	.20	.29	.11
16	.44	.11	.42	8.8	1.8	2.5	1.4	.24	.16	.30	.28	.13
17	.33	.10	2.2	49	2.3	3.6	3.5	.19	.15	.21	.27	.18
18	.86	.11	.50	52	36	2.1	1.9	.19	.11	.18	.19	.17
19	.53	.16	.43	9.2	182	2.1	1.4	.15	.14	.17	.15	.15
20	.76	.13	.45	17	50	2.1	1.3	.14	.14	.19	.13	.18
21	1.3	.12	.45	24	13	2.2	1.1	.11	.13	.18	.15	.14
22	.65	.22	.46	18	11	2.0	1.1	.12	.16	.19	.15	.16
23	.79	.14	.48	6.3	32	15	1.2	.11	.14	.21	.18	.15
24	.99	.18	.49	4.6	4.3	6.1	1.1	.93	.14	.22	.13	.13
25	.79	.15	.48	3.8	5.3	13	1.0	.70	.13	.20	.12	.13
26	1.0	.15	.52	3.1	116	45	1.0	.26	.11	.20	.12	.14
27	.72	.17	.56	2.8	12	11	1.0	1.0	.16	.20	.15	.15
28	1.4	.18	23	2.5	6.9	4.2	1.2	.51	.18	.20	.18	.13
29	6.4	.23	28	2.1	---	2.9	.79	.33	.13	.18	.13	.14
30	.31	.23	10	1.9	---	2.7	.74	.28	.16	.19	.27	.15
31	.09	---	3.8	1.8	---	4.2	---	1.9	---	.21	.13	---
TOTAL	20.07	4.03	136.91	634.7	515.3	169.8	49.03	12.51	5.94	6.26	5.91	4.44
MEAN	.65	.13	4.42	20.5	18.4	5.48	1.63	.40	.20	.20	.19	.15
MAX	6.4	.54	28	181	182	45	3.5	1.9	1.0	.30	.30	.18
MIN	.08	.03	.23	1.8	1.3	2.0	.74	.11	.07	.11	.12	.11
AC-FT	40	8.0	272	1260	1020	337	97	25	12	12	12	8.8

11166000 MATADERO CREEK AT PALO ALTO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.43	1.51	3.44	7.39	7.24	4.84	2.10	.40	.20	.14	.14	.16
MAX	2.95	9.82	24.3	32.3	38.2	37.8	25.2	4.39	1.90	.66	.70	.66
(WY)	1973	1973	1956	1983	1973	1983	1958	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.016	.014	.000	.000	.000	.000	.000	.000	.000
(WY)	1953	1953	1954	1954	1964	1959	1954	1953	1953	1953	1953	1953

SUMMARY STATISTICS	FOR 1993 WATER YEAR		WATER YEARS 1953 - 1993	
ANNUAL TOTAL	1564.90			
ANNUAL MEAN	4.29		2.34	
HIGHEST ANNUAL MEAN			10.9	1983
LOWEST ANNUAL MEAN			.062	1954
HIGHEST DAILY MEAN	182	Feb 19	335	Dec 23 1955
LOWEST DAILY MEAN	.03	Nov 5	.00	Oct 1 1952
ANNUAL SEVEN-DAY MINIMUM	.07	Nov 1	.00	Oct 1 1952
INSTANTANEOUS PEAK FLOW	474	Feb 26	1500	Jan 24 1983
INSTANTANEOUS PEAK STAGE	5.26	Feb 26	9.88	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	3100		1700	
10 PERCENT EXCEEDS	6.3		2.7	
50 PERCENT EXCEEDS	.31		.13	
90 PERCENT EXCEEDS	.12		.00	

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES
(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	.00	.03	.00
2	---	---	---	---	---	---	---	---	---	.00	.03	.00
3	---	---	---	---	---	---	---	---	---	.00	.01	.00
4	---	---	---	---	---	---	---	---	.03	.00	.03	.00
5	---	---	---	---	---	---	---	---	.06	.00	.01	.00
6	---	---	---	---	---	---	---	---	.08	.00	.03	.00
7	---	---	---	---	---	---	---	---	.13	.00	.02	.00
8	---	---	---	---	---	---	---	---	.05	.01	.03	.00
9	---	---	---	---	---	---	---	---	.03	.00	.04	.01
10	---	---	---	---	---	---	---	---	.03	.01	.03	.00
11	---	---	---	---	---	---	---	---	.03	.12	.06	.00
12	---	---	---	---	---	---	---	---	.05	.20	.04	.00
13	---	---	---	---	---	---	---	---	.03	.15	.09	.01
14	---	---	---	---	---	---	---	---	.05	.12	.10	.01
15	---	---	---	---	---	---	---	---	.02	.09	.00	.02
16	---	---	---	---	---	---	---	---	.03	.10	.00	.03
17	---	---	---	---	---	---	---	---	.02	.07	.00	.02
18	---	---	---	---	---	---	---	---	.02	.07	.00	.02
19	---	---	---	---	---	---	---	---	.02	.17	.00	.01
20	---	---	---	---	---	---	---	---	.05	.08	.00	.03
21	---	---	---	---	---	---	---	---	.06	.05	.00	.01
22	---	---	---	---	---	---	---	---	.02	.04	.00	.01
23	---	---	---	---	---	---	---	---	.03	.06	.00	.02
24	---	---	---	---	---	---	---	---	.02	.04	.00	.01
25	---	---	---	---	---	---	---	---	.03	.07	.00	.01
26	---	---	---	---	---	---	---	---	.02	.04	.00	.00
27	---	---	---	---	---	---	---	---	.03	.08	.00	.05
28	---	---	---	---	---	---	---	---	.02	.03	.00	.04
29	---	---	---	---	---	---	---	---	.07	.00	.02	.15
30	---	---	---	---	---	---	---	---	.01	.02	.00	.20
31	---	---	---	---	---	---	---	---	---	.02	.00	---
TOTAL	---	---	---	---	---	---	---	---	---	1.64	0.57	0.66
MEAN	---	---	---	---	---	---	---	---	---	.053	.018	.022
MAX	---	---	---	---	---	---	---	---	---	.20	.10	.20
MIN	---	---	---	---	---	---	---	---	---	.00	.00	.00
AC-FT	---	---	---	---	---	---	---	---	---	3.3	1.1	1.3

11169000 GUADALUPE RIVER AT SAN JOSE, CA

LOCATION.--Lat 37°20'04", long 121°53'54", Santa Clara County, Hydrologic Unit 18050003, on right bank 150 ft upstream from St. John Street Bridge, one block below Santa Clara Avenue, and 100 ft downstream from Los Gatos Creek.

DRAINAGE AREA.--146 mi^2.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to 1945, published as Guadalupe Creek at San Jose.
CHEMICAL DATA: Water years 1979-91.
SEDIMENT DATA: Water years 1985-89.

REVISED RECORDS.--WSP 1315-B: 1943(M), 1945(M), 1949(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 72.00 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lexington Reservoir 12 mi upstream and by Calero (station 11166740), Almaden, and Guadalupe Reservoirs, and Lake Elsman (combined usable capacity, about 42,000 acre-ft), with water released during summer for percolation in spreading basins on tributaries. Transbasin diversions from San Luis Reservoir (part of San Felipe Project), from the South Bay Aqueduct, and from Hetch Hetchy Aqueduct during the current year amounted to 57,900 acre-ft, 58,200 acre-ft, and 54,600 acre-ft, respectively. Upstream diversions by San Jose Water Works for urban use amounted to 14,000 acre-ft during the current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,150 ft^3/s, Apr. 2, 1958, gage height, 16.55 ft; no flow several days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,920 ft^3/s, Jan. 13, gage height, 8.66 ft; no flow, Oct. 22-26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.39	1.1	.94	957	25	437	53	2.6	3.7	2.5	1.9	1.6
2	.45	1.2	23	71	22	339	33	2.7	2.7	2.2	1.8	1.6
3	.48	2.6	53	21	22	292	30	2.7	2.6	2.2	2.9	1.6
4	.52	2.2	2.7	11	22	237	29	2.2	8.2	2.2	2.4	1.6
5	.65	.62	1.3	6.0	17	160	27	2.0	52	2.2	2.2	1.6
6	.74	.59	248	132	16	135	25	2.4	20	2.3	2.3	1.5
7	1.2	.59	151	635	52	120	20	4.4	17	2.3	2.3	1.6
8	.61	.65	14	132	251	108	15	2.3	8.6	2.2	2.3	1.4
9	.58	.69	15	59	109	94	10	2.2	6.5	2.1	2.3	4.7
10	.58	.71	359	123	34	87	7.5	3.0	5.4	2.1	2.4	5.3
11	.59	.81	105	24	117	80	4.6	4.1	4.6	2.1	2.2	4.7
12	.59	.84	25	314	36	75	4.8	4.1	3.5	2.1	2.0	4.6
13	.63	.74	7.8	2380	29	68	5.5	4.6	3.0	2.4	1.9	4.5
14	.64	.59	4.8	923	26	66	3.2	4.1	2.8	2.2	1.9	3.2
15	.65	.61	15	522	22	60	4.2	3.5	2.7	2.3	1.9	2.9
16	.69	.67	6.0	345	19	58	2.5	3.5	3.1	2.7	1.8	2.4
17	.75	.66	14	955	62	66	33	5.8	2.6	2.8	1.8	1.9
18	.76	.65	7.9	860	734	58	8.0	4.5	2.3	2.9	1.8	1.8
19	.84	.96	.91	345	1840	50	5.3	3.7	2.3	3.4	1.8	1.7
20	.64	1.1	.46	238	1250	41	3.1	3.4	2.3	4.3	1.8	1.8
21	.27	.94	.33	375	715	39	2.6	3.2	2.2	3.5	1.7	1.6
22	.00	.60	.39	615	527	37	2.5	3.1	2.4	4.3	1.6	1.6
23	.00	.20	1.1	345	545	158	2.5	2.9	2.4	3.9	1.6	1.5
24	.00	.94	1.1	215	402	242	2.5	13	2.3	4.0	1.6	1.5
25	.00	.80	1.1	147	421	162	2.4	16	2.2	4.3	2.1	1.5
26	.00	.90	1.0	105	1520	623	2.5	4.9	2.2	3.6	2.1	1.5
27	.76	.96	1.0	50	717	232	2.5	2.9	1.8	2.8	1.6	1.5
28	2.2	.98	480	36	540	143	2.5	2.5	1.9	2.7	1.6	1.5
29	7.0	1.0	243	33	---	118	2.5	2.1	2.2	10	1.7	1.5
30	6.4	1.0	38	32	---	97	2.6	2.2	2.2	5.0	1.9	1.7
31	3.3	---	6.7	28	---	85	---	7.1	---	2.2	1.7	---
TOTAL	32.91	26.90	1828.53	11034.0	10092	4567	348.8	127.7	177.7	95.8	60.9	67.4
MEAN	1.06	.90	59.0	356	360	147	11.6	4.12	5.92	3.09	1.96	2.25
MAX	7.0	2.6	480	2380	1840	623	53	16	52	10	2.9	5.3
MIN	.00	.20	.33	6.0	16	37	2.4	2.0	1.8	2.1	1.6	1.4
AC-FT	65	53	3630	21890	20020	9060	692	253	352	190	121	134

11169000 GUADALUPE RIVER AT SAN JOSE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.81	14.1	38.5	85.5	145	121	65.5	8.07	2.61	2.47	2.26	2.68
MAX	129	123	311	683	1080	1165	847	219	23.5	23.4	22.3	31.0
(WY)	1963	1984	1932	1952	1938	1983	1982	1983	1984	1984	1984	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1930	1930	1930	1931	1930	1931	1930	1930	1930	1930	1930	1930

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1930 - 1993	
ANNUAL TOTAL	9554.05		28459.64			
ANNUAL MEAN	26.1		78.0		40.6	
HIGHEST ANNUAL MEAN					270	1983
LOWEST ANNUAL MEAN					.000	1931
HIGHEST DAILY MEAN	1500	Feb 12	2380	Jan 13	6660	Feb 19 1986
LOWEST DAILY MEAN	.00	Aug 25	.00	Oct 22	.00	Oct 1 1929
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 25	.13	Oct 20	.00	Oct 1 1929
INSTANTANEOUS PEAK FLOW			4920	Jan 13	9150	Apr 2 1958
INSTANTANEOUS PEAK STAGE			8.66	Jan 13	16.55	Apr 2 1958
ANNUAL RUNOFF (AC-FT)	18950		56450		29400	
10 PERCENT EXCEEDS	21		234		41	
50 PERCENT EXCEEDS	.78		2.8		.32	
90 PERCENT EXCEEDS	.00		.70		.00	

11169500 SARATOGA CREEK AT SARATOGA, CA

LOCATION.--Lat 37°15'16", long 122°02'18", in Quito Grant, Santa Clara County, Hydrologic Unit 18050003, on right bank on upstream side of private road bridge, 0.5 mi southwest of Saratoga, and 0.7 mi downstream from diversion dam.

DRAINAGE AREA.--9.22 mi^2.

PERIOD OF RECORD.--October 1933 to current year. Prior to October 1951, published as Campbell Creek at Saratoga. CHEMICAL DATA: Water years 1972 to December 1972.

REVISED RECORDS.--WSP 1445: 1940, 1952(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 500 ft above sea level, from topographic map. Prior to Dec. 6, 1968, at site 40 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Water is diverted for municipal use by San Jose Water Works at diversion dam upstream from station. Low flows partially regulated by Lake McKenzie 8 mi upstream, usable capacity, 184 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,730 ft^3/s, Dec. 22, 1955, gage height, 6.40 ft, site and datum then in use, from rating curve extended above 510 ft^3/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 110 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 10	2000	141	3.65	Jan. 21	2230	263	4.22
Jan. 1	0815	156	3.73	Feb. 19	0615	347	4.50
Jan. 13	0500	*665	*5.30				

Minimum daily, 0.18 ft^3/s, Oct. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.59	.81	70	16	54	14	4.4	4.4	2.3	1.4	1.2
2	.22	.56	1.7	30	13	48	11	4.0	4.3	2.2	1.3	1.1
3	.22	.56	2.6	16	12	43	11	3.4	4.2	2.2	1.2	1.1
4	.22	.56	1.8	10	8.2	37	10	3.4	4.6	2.0	1.3	1.2
5	.24	.56	1.8	10	7.8	33	10	3.8	4.5	2.1	1.3	1.2
6	.20	.56	12	19	7.2	30	8.8	3.1	4.4	2.1	1.4	1.2
7	.19	.56	7.5	59	8.6	27	8.1	3.0	4.2	2.0	1.3	1.1
8	.22	.56	3.8	39	12	25	7.9	3.0	4.1	2.0	1.3	.91
9	.21	.61	19	23	11	23	7.4	3.0	3.8	1.9	1.4	.89
10	.19	.58	50	20	9.8	21	7.2	2.9	3.6	1.8	1.4	.95
11	.19	.60	28	13	14	21	7.0	3.2	3.5	1.9	1.3	.94
12	.18	.63	14	32	10	19	6.9	3.1	3.5	1.9	1.3	.88
13	.20	.63	8.7	314	8.7	17	6.6	3.3	3.4	1.9	1.3	.82
14	.22	.63	5.9	124	7.6	16	6.3	3.0	3.3	1.8	1.3	.84
15	.23	.63	4.3	73	7.0	15	6.0	2.9	3.2	1.9	1.4	.91
16	.23	.63	3.7	57	6.5	15	6.9	3.7	3.2	1.8	1.2	.78
17	.24	.63	4.0	76	30	17	10	4.2	3.0	1.8	1.2	.75
18	.27	.66	3.1	89	111	16	7.5	4.1	3.0	1.8	1.2	.89
19	.34	.69	2.6	60	239	15	6.2	4.1	3.0	1.6	1.2	.83
20	.36	.77	2.5	108	149	14	6.2	4.3	2.9	1.6	1.4	.76
21	.31	.75	2.3	149	104	13	5.9	4.1	2.8	1.6	1.3	.73
22	.31	.81	2.1	147	84	12	4.5	4.1	2.6	1.5	1.2	.62
23	.31	.81	2.1	86	132	15	4.1	4.2	2.6	1.5	1.2	.64
24	.31	.81	2.1	64	94	18	4.2	4.4	2.6	1.4	1.1	.60
25	.35	.81	2.1	45	74	16	3.8	4.4	2.5	1.5	1.1	.59
26	.36	.81	2.1	34	114	21	3.4	4.4	2.4	1.6	1.1	.53
27	.36	.81	2.1	27	80	22	3.4	4.4	2.4	1.6	1.1	.53
28	.36	.81	28	25	63	18	3.5	4.3	2.3	1.6	1.0	.57
29	4.0	.81	34	26	---	15	3.6	4.1	2.3	1.5	1.1	.62
30	.86	.81	17	21	---	14	3.6	4.2	2.3	1.4	1.2	.63
31	.67	---	9.8	19	---	13	---	4.5	---	1.4	1.2	---
TOTAL	12.81	20.24	281.51	1885	1433.4	683	205.0	117.0	98.9	55.2	38.7	25.31
MEAN	.41	.67	9.08	60.8	51.2	22.0	6.83	3.77	3.30	1.78	1.25	.84
MAX	4.0	.81	50	314	239	54	14	4.5	4.6	2.3	1.4	1.2
MIN	.18	.56	.81	10	6.5	12	3.4	2.9	2.3	1.4	1.0	.53
AC-FT	25	40	558	3740	2840	1350	407	232	196	109	77	50
a	0	0	0	65	75	132	167	87	0	0	0	0

a Diversion, in acre-feet, for municipal use, provided by San Jose Water Works.

11169500 SARATOGA CREEK AT SARATOGA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.88	2.77	9.30	21.0	29.5	22.5	14.0	3.76	1.27	.53	.33	.34
MAX	17.5	25.5	83.2	87.8	135	114	131	35.7	6.97	2.95	1.60	1.54
(WY)	1963	1951	1956	1952	1986	1983	1982	1983	1941	1941	1941	1974
MIN	.000	.037	.25	.31	.086	.32	.24	.065	.000	.000	.000	.000
(WY)	1950	1949	1957	1976	1964	1972	1972	1959	1950	1947	1934	1934

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1934 - 1993	
ANNUAL TOTAL	1895.61		4856.07			
ANNUAL MEAN	5.18		13.3		8.73	
ANNUAL MEAN ADJUSTED a	6.00		14.0		9.97	
HIGHEST ANNUAL MEAN					32.5	1983
LOWEST ANNUAL MEAN					.54	1977
HIGHEST DAILY MEAN	163	Feb 12	314	Jan 13	1260	Feb 27 1940
LOWEST DAILY MEAN	.11	Aug 24	.18	Oct 12	.00	Oct 1 1933
ANNUAL SEVEN-DAY MINIMUM	.13	Aug 19	.20	Oct 6	.00	Oct 1 1933
INSTANTANEOUS PEAK FLOW			665	Jan 13	2730	Dec 22 1955
INSTANTANEOUS PEAK STAGE			5.30	Jan 13	6.40	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	3760		9630		6320	
10 PERCENT EXCEEDS	12		31		19	
50 PERCENT EXCEEDS	1.1		3.0		.80	
90 PERCENT EXCEEDS	.21		.56		.00	

a Adjusted for upstream diversions by San Jose Water Works.

11176000 ARROYO MOCHO NEAR LIVERMORE, CA

LOCATION.--Lat 37°37'35", long 121°42'13", in NW 1/4 SE 1/4 sec.36, T.3 S., R.2 E., Alameda County, Hydrologic Unit 18050004, on right bank 40 ft downstream from Mines Road Bridge, 2.4 mi upstream from small right-bank tributary, and 5.2 mi southeast of Livermore.

DRAINAGE AREA.--38.2 mi^2.

PERIOD OF RECORD.--January 1912 to September 1930, October 1963 to current year. Records for water year 1914 incomplete; yearly estimate and monthly discharge only for some months, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 746.49 ft above sea level. January 1912 to October 1914, at present site at different datum. November 1914 to Sept. 30, 1930, at site 1 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 2,250 ft^3/s, Jan. 24, 1983, gage height, 8.80 ft, from rating curve extended above 600 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 10.44 ft, Feb. 19, 1986, from floodmarks; no flow for parts of most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a discharge of 1,880 ft^3/s, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 29	0045	92	4.99	Jan. 17	1530	202	5.71
Jan. 1	1630	127	5.25	Feb. 19	2245	220	5.83
Jan. 13	0700	*440	*6.98	Feb. 26	0215	101	5.06

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	45	3.8	50	23	2.7	4.0	.41	.13	.10
2	.00	.00	.00	30	3.6	40	18	2.6	3.4	.39	.13	.10
3	.00	.00	.00	13	3.5	33	15	2.6	3.1	.37	.13	.09
4	.00	.00	.00	8.2	3.4	28	14	2.7	3.7	.34	.13	.07
5	.00	.00	.00	6.2	3.0	23	12	2.5	4.6	.38	.13	.07
6	.00	.00	.00	5.8	3.0	19	10	2.4	3.8	.37	.12	.07
7	.00	.00	.00	39	3.0	16	9.5	2.2	3.4	.32	.10	.05
8	.00	.00	.00	45	27	13	8.6	2.2	3.2	.32	.10	.05
9	.00	.00	.00	27	62	11	8.4	2.1	2.9	.32	.10	.05
10	.00	.00	.00	22	35	9.6	7.6	2.2	2.5	.32	.10	.05
11	.00	.00	.00	16	22	8.8	7.2	2.2	2.2	.31	.10	.05
12	.00	.00	.00	18	14	8.4	6.6	2.4	2.0	.28	.10	.05
13	.00	.00	.00	206	10	8.0	6.1	2.4	1.8	.26	.10	.05
14	.00	.00	.00	90	8.1	8.1	6.0	2.2	1.7	.24	.13	.05
15	.00	.00	.00	43	6.8	7.5	5.6	2.4	1.6	.22	.13	.05
16	.00	.00	.00	38	5.9	6.8	5.0	2.4	1.5	.20	.13	.05
17	.00	.00	.00	81	5.3	8.5	5.7	2.5	1.3	.20	.13	.05
18	.00	.00	.27	79	22	7.7	7.6	2.7	1.2	.22	.13	.06
19	.00	.00	.74	42	115	6.4	5.6	2.8	1.0	.20	.13	.07
20	.00	.00	.61	31	123	6.0	4.8	3.4	.96	.20	.13	.05
21	.00	.00	.58	41	77	5.4	4.3	3.6	.93	.19	.13	.05
22	.00	.00	.53	51	51	5.0	3.9	3.7	.91	.17	.13	.05
23	.00	.00	.49	31	45	6.1	3.7	3.7	.86	.17	.10	.05
24	.00	.00	.62	21	47	22	3.8	4.1	.76	.16	.09	.05
25	.00	.00	.54	14	37	20	3.6	6.3	.67	.13	.10	.05
26	.00	.00	.50	10	80	90	3.3	5.1	.58	.13	.10	.05
27	.00	.00	.50	8.1	67	70	3.2	4.5	.51	.13	.10	.05
28	.00	.00	5.4	6.6	67	59	3.1	4.2	.48	.13	.10	.05
29	.00	.00	51	5.5	---	41	2.8	3.7	.47	.12	.10	.05
30	.00	.00	31	4.6	---	33	2.9	3.7	.43	.10	.10	.06
31	.00	---	11	4.1	---	25	---	4.2	---	.11	.10	---
TOTAL	0.00	0.00	103.78	1082.1	950.4	695.3	220.9	96.4	56.46	7.41	3.53	1.74
MEAN	.000	.000	3.35	34.9	33.9	22.4	7.36	3.11	1.88	.24	.11	.058
MAX	.00	.00	51	206	123	90	23	6.3	4.6	.41	.13	.10
MIN	.00	.00	.00	4.1	3.0	5.0	2.8	2.1	.43	.10	.09	.05
AC-FT	.00	.00	206	2150	1890	1380	438	191	112	15	7.0	3.5

11176000 ARROYO MOCHO NEAR LIVERMORE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.10	.89	3.70	12.9	21.3	12.9	4.82	1.50	.53	.18	.087	.076
MAX	1.55	11.6	33.2	122	100	155	41.8	21.5	6.96	4.04	2.57	2.47
(WY)	1984	1984	1984	1983	1915	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1913	1915	1919	1991	1991	1924	1924	1920	1913	1913	1913	1913

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1913 - 1993	
ANNUAL TOTAL	1218.21		3218.02			
ANNUAL MEAN	3.33		8.82		4.91	
HIGHEST ANNUAL MEAN					38.8	1983
LOWEST ANNUAL MEAN					.035	1924
HIGHEST DAILY MEAN	287	Feb 15	206	Jan 13	1510	Mar 1 1983
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1912
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 19	.00	Oct 1	.00	Oct 1 1912
INSTANTANEOUS PEAK FLOW			440	Jan 13	2250	Jan 24 1983
INSTANTANEOUS PEAK STAGE			6.98	Jan 13	10.44	Feb 19 1986
ANNUAL RUNOFF (AC-FT)	2420		6380		3560	
10 PERCENT EXCEEDS	3.7		30		6.0	
50 PERCENT EXCEEDS	.00		.61		.20	
90 PERCENT EXCEEDS	.00		.00		.00	

11176400 ARROYO VALLE BELOW LANG CANYON, NEAR LIVERMORE, CA

LOCATION.--Lat 37°33'41", long 121°40'58", in NE 1/4 NE 1/4 sec.30, T.4 S., R.3 E., Alameda County, Hydrologic Unit 18050004, on laft bank 100 ft upstream from small left-bank tributary, 1.2 mi downstream from Lang Canyon, and 9.5 mi aoutheast of Livermora.

DRAINAGE AREA.--130 mi^2.

PERIOD OF RECORD.--October 1963 to current year. Prior to October 1974, publishad as "above Lang Canyon, near Livermore."

GAGE.--Water-stage recorder. Concrete control since June 19, 1975. Elevation of gage is 750 ft above sea level, from topogrephic map. Prior to June 19, 1975, at site 1.4 mi upstream at different datum.

REMARKS.--Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum diacharge, 8,790 ft^3/s, Feb. 17, 1986, gage height, 7.36 ft, from rating curve extended above 1,000 ft^3/s on basis of slope-area measurements at gage heights 4.13, 5.40, and 7.36 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	1030	667	2.23	Feb. 9	0045	1,060	2.61
Jan. 13	1100	*3,890	*4.45	Feb. 19	0330	2,030	3.32
Jan. 17	2000	1,460	2.93	Mar. 26	2100	621	2.18
Jan. 22	0215	723	2.29				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	218	e86	302	130	17	9.7	.28	.00	.00
2	.00	.00	.00	213	e73	233	115	15	8.5	.20	.00	.00
3	.00	.00	.00	77	e58	189	105	15	6.9	.16	.00	.00
4	.00	.00	.00	44	e36	149	99	16	7.1	.08	.00	.00
5	.00	.00	.00	32	26	121	95	15	9.5	.06	.00	.00
6	.00	.00	.00	29	21	104	87	15	8.7	.03	.00	.00
7	.00	.00	.00	414	18	93	80	15	8.2	.00	.00	.00
8	.00	.00	.00	343	295	86	76	14	7.6	.00	.00	.00
9	.00	.00	.00	168	656	76	72	13	6.6	.00	.00	.00
10	.00	.00	2.8	148	269	68	68	13	6.4	.00	.00	.00
11	.00	.00	16	115	208	62	63	13	5.6	.00	.00	.00
12	.00	.00	9.8	99	160	56	60	13	5.4	.00	.00	.00
13	.00	.00	3.8	2680	111	54	55	13	4.6	.00	.00	.00
14	.00	.00	1.8	1330	80	52	52	13	4.5	.00	.00	.00
15	.00	.00	1.2	433	61	47	48	13	3.8	.00	.00	.00
16	.00	.00	.89	387	48	41	43	13	3.4	.00	.00	.00
17	.00	.00	1.5	674	39	46	44	13	3.1	.00	.00	.00
18	.00	.00	5.3	857	173	43	50	12	2.6	.00	.00	.00
19	.00	.00	2.5	405	1660	34	43	12	2.4	.00	.00	.00
20	.00	.00	1.6	301	1230	29	37	11	1.9	.00	.00	.00
21	.00	.00	1.3	366	538	25	33	10	1.9	.00	.00	.00
22	.00	.00	1.5	583	311	21	31	10	1.5	.00	.00	.00
23	.00	.00	1.3	371	297	22	30	9.9	1.5	.00	.00	.00
24	.00	.00	1.0	284	368	63	28	9.8	1.4	.00	.00	.00
25	.00	.00	1.0	244	272	59	26	13	1.0	.00	.00	.00
26	.00	.00	1.0	212	516	435	25	12	.79	.00	.00	.00
27	.00	.00	1.0	183	508	416	23	11	.73	.00	.00	.00
28	.00	.00	30	160	403	313	21	10	.52	.00	.00	.00
29	.00	.00	181	e148	---	217	19	9.6	.48	.00	.00	.00
30	.00	.00	100	e118	---	170	17	8.8	.34	.00	.00	.00
31	.00	---	51	e103	---	142	---	9.8	---	.00	.00	---
TOTAL	0.00	0.00	417.29	11739	8521	3768	1675	387.9	126.66	0.81	0.00	0.00
MEAN	.000	.000	13.5	379	304	122	55.8	12.5	4.22	.026	.000	.000
MAX	.00	.00	181	2680	1660	435	130	17	9.7	.28	.00	.00
MIN	.00	.00	.00	29	18	21	17	8.8	.34	.00	.00	.00
AC-FT	.00	.00	828	23280	16900	7470	3320	769	251	1.6	.00	.00

e Estimated.

11176400 ARROYO VALLE BELOW LANG CANYON, NEAR LIVERMORE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.25	7.94	31.7	101	132	93.5	39.9	8.41	2.32	.59	.19	.12
MAX	3.12	79.2	216	492	779	625	322	71.5	17.3	7.43	3.67	2.00
(WY)	1984	1983	1984	1983	1986	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.24	.82	.14	.001	.000	.000	.000	.000
(WY)	1965	1977	1990	1991	1991	1977	1977	1977	1976	1964	1964	1964

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1964 - 1993	
ANNUAL TOTAL	6274.87		26635.66			
ANNUAL MEAN	17.1		73.0		34.3	
HIGHEST ANNUAL MEAN					174	1983
LOWEST ANNUAL MEAN					.24	1977
HIGHEST DAILY MEAN	1220	Feb 15	2680	Jan 13	4860	Feb 19 1986
LOWEST DAILY MEAN	.00	May 31	.00	Oct 1	.00	Oct 1 1963
ANNUAL SEVEN-DAY MINIMUM	.00	May 31	.00	Oct 1	.00	Oct 1 1963
INSTANTANEOUS PEAK FLOW			3890	Jan 13	8790	Feb 17 1986
INSTANTANEOUS PEAK STAGE			4.45	Jan 13	7.36	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	12450		52830		24870	
10 PERCENT EXCEEDS	25		212		49	
50 PERCENT EXCEEDS	.00		1.8		1.2	
90 PERCENT EXCEEDS	.00		.00		.00	

11176500 ARROYO VALLE NEAR LIVERMORE, CA

LOCATION.--Lat 37°37'24", long 121°45'28", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank 900 ft downstream from highwey bridge, 1.1 mi upstream from Dry Creek, 1.3 mi downstream from Del Valle Dam, 4.1 mi aouth of Livermore, and 6.9 mi southeast of Pleaaanton.

DRAINAGE AREA.--147 mi^2.

PERIOD OF RECORD.--January 1912 to September 1930, October 1957 to current yeer. Monthly discharge only for aome periods, published in WSP 1315-B. Published as Arroyo del Valle near Livermore, 1912-29.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 510.44 ft above aea level. Prior to November 1914, at site 900 ft upstream at different datum. Nov. 1, 1914, to Sept. 30, 1930, at aite 300 ft upstream at different datum.

REMARKS.--Records fair. Flow regulated by Del Valle Reservoir 1.3 mi upstream beginning in September 1968, capacity, 77,100 acre-ft. Water from Secramento-San Joaquin Delta imported through South Bay Aqueduct can be pumped into Del Valle Reservoir for storage and later released into the chennel for downstream percolation or returned to the South Bay Aqueduct.

EXTREMES FOR PERIOD OF RECORD.--Maximum discherge, 12,200 ft^3/s, Apr. 2, 1958, gage height, 10.91 ft; no flow at times. Maximum discharge since construction of Del Valle Dam in 1968, 2,850 ft^3/s, Mar. 3, 1983, gage height, 8.89 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 13.9 ft from floodmarks, discharge, 18,200 ft^3/s, on basis of contracted-opening and alope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,460 ft^3/s, Feb. 20, gage height, 7.10 ft; minimum deily, 0.07 ft^3/s, June 19, 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.53	.80	.64	5.0	1.4	297	57	.69	.76	36	32	.13
2	.57	.81	.84	2.9	1.4	174	55	.76	.69	36	32	.16
3	.57	.59	1.3	2.3	1.4	72	55	.95	.67	37	32	2.2
4	.54	.41	1.2	2.0	1.4	33	55	1.5	.66	38	32	9.4
5	.50	.41	1.2	1.4	1.4	2.5	31	1.5	.70	37	32	9.6
6	.51	.43	2.1	.76	1.4	1.8	1.6	2.1	.62	36	32	9.6
7	.41	.42	3.0	2.5	1.8	1.5	1.4	1.9	.53	34	31	13
8	.38	.43	2.5	1.2	3.7	1.4	1.2	.73	.47	32	30	27
9	.38	.42	3.8	.79	3.0	1.2	1.2	.76	.31	32	30	34
10	.43	.42	4.2	.78	2.0	1.1	1.1	.75	.25	32	30	34
11	.43	.39	4.2	.73	2.1	1.1	.91	.88	.26	32	30	29
12	.40	.36	3.3	.81	17	1.0	.91	.88	.25	32	35	21
13	.47	.40	3.0	5.6	70	.88	.97	.89	.22	32	30	21
14	.49	.40	3.2	1.8	69	.89	.99	.90	.27	31	30	21
15	.53	.40	3.0	1.1	70	.88	.81	.88	.26	31	30	21
16	.49	.38	2.9	.95	69	.96	.86	.91	.10	31	29	21
17	.52	.43	3.6	165	69	1.5	.97	.90	.10	31	32	21
18	.55	.45	3.2	702	70	1.3	.93	.98	.08	31	35	21
19	.56	.55	3.2	759	427	.76	.80	1.0	.07	31	35	21
20	.55	.64	3.2	235	1180	.74	.74	1.2	.08	31	18	15
21	.67	.71	3.4	7.7	1180	.72	.78	1.2	.08	31	.31	.42
22	.59	.74	3.0	6.5	705	.64	.78	1.1	.08	30	.18	9.8
23	.57	.74	3.0	3.7	449	.81	.81	1.1	.07	30	.14	20
24	.53	.74	2.9	3.4	248	1.2	.72	1.0	4.1	30	.14	20
25	.49	.70	2.9	2.9	248	.69	.73	.99	20	30	.11	20
26	.50	.74	2.9	2.2	281	204	.74	.96	36	31	.10	20
27	.52	.70	3.1	1.9	296	376	.74	.88	36	33	.11	20
28	.60	.69	4.5	1.8	296	373	.65	.87	39	33	.09	20
29	.79	.69	4.7	1.7	---	226	.55	.97	46	33	.09	20
30	.88	.61	3.9	1.6	---	66	.62	1.0	42	32	.22	20
31	.82	---	2.8	1.6	---	63	---	1.0	---	32	.18	---
TOTAL	16.77	16.60	90.68	1926.62	5765.0	1907.57	275.51	32.13	230.68	1008	618.67	521.31
MEAN	.54	.55	2.93	62.1	206	61.5	9.18	1.04	7.69	32.5	20.0	17.4
MAX	.88	.81	4.7	759	1180	376	57	2.1	46	38	35	34
MIN	.38	.36	.64	.73	1.4	.64	.55	.69	.07	30	.09	.13
AC-FT	33	33	180	3820	11430	3780	546	64	458	2000	1230	1030

11176500 ARROYO VALLE NEAR LIVERMORE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1968, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.016	2.63	18.0	87.6	146	51.4	47.2	7.37	1.83	.32	.089	.021
MAX	.15	69.2	125	851	522	280	620	57.8	9.47	2.28	.83	.24
(WY)	1967	1927	1965	1914	1915	1958	1958	1915	1967	1967	1958	1958
MIN	.000	.000	.000	.000	.000	.000	.000	.094	.000	.000	.000	.000
(WY)	1914	1914	1918	1918	1920	1924	1924	1924	1918	1914	1913	1913

SUMMARY STATISTICS	WATER YEARS 1912 - 1968		
ANNUAL MEAN	29.6		
HIGHEST ANNUAL MEAN	118		1914
LOWEST ANNUAL MEAN	.008		1924
HIGHEST DAILY MEAN	5930	Jan 25	1914
LOWEST DAILY MEAN	.00	Sep 22	1912
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 22	1912
INSTANTANEOUS PEAK FLOW	12200	Apr 2	1958
INSTANTANEOUS PEAK STAGE	10.91	Apr 2	1958
ANNUAL RUNOFF (AC-FT)	21460		
10 PERCENT EXCEEDS	35		
50 PERCENT EXCEEDS	.20		
90 PERCENT EXCEEDS	.00		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.10	8.36	8.89	32.6	85.4	61.6	23.2	6.61	9.93	15.7	14.1	11.0
MAX	43.2	39.4	35.9	440	549	653	334	30.8	51.7	46.0	54.3	48.1
(WY)	1971	1981	1981	1983	1986	1983	1982	1970	1980	1980	1981	1981
MIN	.17	.30	.36	.35	.30	.36	.22	.23	.15	.079	.11	.16
(WY)	1987	1987	1989	1990	1991	1977	1990	1990	1990	1985	1989	1984

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1970 - 1993	
ANNUAL TOTAL	319.78		12409.54			
ANNUAL MEAN	.87		34.0		23.5	
HIGHEST ANNUAL MEAN					131	1983
LOWEST ANNUAL MEAN					.44	1987
HIGHEST DAILY MEAN	4.7	Dec 29	1180	Feb 20	2370	Mar 3 1983
LOWEST DAILY MEAN	.24	Jun 3	.07	Jun 19	.00	Jun 25 1983
ANNUAL SEVEN-DAY MINIMUM	.28	May 17	.08	Jun 17	.05	Jun 24 1983
INSTANTANEOUS PEAK FLOW			1460	Feb 20	2850	Mer 3 1983
INSTANTANEOUS PEAK STAGE			7.10	Feb 20	8.89	Mar 3 1983
ANNUAL RUNOFF (AC-FT)	634		24610		17050	
10 PERCENT EXCEEDS	1.9		38		35	
50 PERCENT EXCEEDS	.55		1.4		1.8	
90 PERCENT EXCEEDS	.30		.40		.24	

11177000 ARROYO DE LA LAGUNA NEAR PLEASANTON, CA

LOCATION.--Lat 37°36'55", long 121°52'50", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank 0.3 mi upstream from small left bank tributary, 0.8 mi downstream from highway bridge, and 3.2 mi south of Pleasanton.

DRAINAGE AREA.--405 mi^2.

PERIOD OF RECORD.--January 1912 to September 1930, October 1969 to September 1983, October 1987 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 248.40 ft above sea level. January 1912 to September 1917, at site 3.0 mi upstream at different datum. October 1917 to September 1930, at site 0.8 mi downstream at different datum. October 1969 to September 1983, at datum 3.00 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Flow partly regulated by Del Valle Reservoir 15 mi upstream, beginning in September 1968, capacity, 77,100 acre-ft. Water imported from Sacramento-San Joaquin Delta (see REMARKS for station 11176500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft^3/s, Jan. 5, 1982, gage height, 22.61 ft, present datum; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,100 ft^3/s, Jan. 13, gage height, 17.81 ft; minimum daily, 1.6 ft^3/s, Nov. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	6.8	3.5	599	27	392	131	13	20	26	35	11
2	4.6	4.1	39	185	25	330	82	13	14	23	32	13
3	4.4	3.3	82	71	23	151	68	21	12	33	26	9.9
4	4.7	2.7	19	47	20	111	66	19	27	36	28	6.3
5	4.8	2.2	6.5	39	21	82	62	15	37	33	27	4.0
6	4.7	2.4	210	120	23	61	49	13	22	28	27	6.1
7	4.5	2.2	141	712	33	52	31	14	17	28	29	7.3
8	4.4	1.9	40	350	264	47	24	13	12	26	29	4.6
9	4.2	1.9	547	123	331	40	29	12	10	23	28	3.2
10	4.7	1.8	182	82	82	36	20	13	7.9	27	27	3.0
11	4.5	1.9	203	56	92	33	18	12	7.6	30	26	18
12	4.5	1.9	82	237	48	32	16	12	8.2	27	28	26
13	4.3	1.9	40	3450	35	31	17	18	8.3	25	30	21
14	4.4	2.0	31	851	65	36	21	13	9.5	24	33	17
15	4.0	2.2	27	300	74	31	22	12	6.9	20	36	18
16	3.1	2.2	23	281	72	28	21	14	6.6	21	34	16
17	2.4	2.2	69	472	96	146	79	14	5.6	19	25	18
18	2.5	2.4	56	758	135	54	68	13	4.8	19	24	21
19	3.2	2.1	32	873	281	33	33	15	4.3	17	25	23
20	3.9	5.2	25	1130	1430	28	24	15	4.0	17	32	24
21	16	3.6	22	849	1880	27	20	14	5.9	18	34	17
22	6.6	2.7	20	808	958	24	19	19	5.9	24	32	11
23	4.4	3.0	19	176	1050	98	19	20	5.0	26	26	6.7
24	3.5	2.2	18	106	486	180	31	31	4.8	20	31	8.2
25	4.3	2.7	17	78	357	58	22	48	5.0	20	31	16
26	4.1	2.1	16	61	1380	531	21	25	4.5	19	20	21
27	3.2	2.2	18	50	529	623	22	17	4.6	23	26	21
28	2.7	2.3	364	42	446	555	21	12	14	27	18	15
29	106	1.6	418	36	---	359	17	9.8	24	31	15	15
30	61	1.9	221	32	---	140	13	8.6	31	30	15	14
31	18	---	60	29	---	105	---	40	---	32	12	---
TOTAL	312.2	77.6	3051.0	13003	10263	4454	1086	528.4	349.4	772	841	415.3
MEAN	10.1	2.59	98.4	419	367	144	36.2	17.0	11.6	24.9	27.1	13.8
MAX	106	6.8	547	3450	1880	623	131	48	37	36	36	26
MIN	2.4	1.6	3.5	29	20	24	13	8.6	4.0	17	12	3.0
AC-FT	619	154	6050	25790	20360	8830	2150	1050	693	1530	1670	824

11177000 ARROYO DE LA LAGUNA NEAR PLEASANTON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1930, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.43	1.96	15.9	174	234	59.5	18.5	8.67	3.52	2.06	1.36	1.19
MAX	9.90	13.4	105	1349	728	207	59.8	74.0	13.9	13.1	8.76	6.98
(WY)	1917	1927	1914	1914	1915	1919	1926	1915	1916	1916	1916	1916
MIN	.000	.000	.000	.000	.84	.53	.000	.000	.000	.000	.000	.000
(WY)	1914	1914	1919	1925	1924	1924	1929	1924	1918	1913	1913	1913

SUMMARY STATISTICS	WATER YEARS 1912 - 1930		
ANNUAL MEAN	42.5		
HIGHEST ANNUAL MEAN	180		1914
LOWEST ANNUAL MEAN	.69		1913
HIGHEST DAILY MEAN	9810	Jan 25	1914
LOWEST DAILY MEAN	.00	Jun 30	1913
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 30	1913
ANNUAL RUNOFF (AC-FT)	30800		
10 PERCENT EXCEEDS	33		
50 PERCENT EXCEEDS	.90		
90 PERCENT EXCEEDS	.00		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	19.6	30.4	51.1	159	188	166	67.9	21.8	16.8	18.7	17.6	15.2
MAX	42.3	92.3	156	867	925	1510	517	116	43.0	40.6	43.5	41.1
(WY)	1971	1983	1983	1983	1983	1983	1982	1983	1983	1975	1981	1981
MIN	3.34	2.59	6.46	6.07	12.7	9.39	6.49	4.05	2.88	1.80	2.31	2.28
(WY)	1991	1993	1990	1991	1977	1988	1990	1992	1991	1992	1991	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1970 - 1993	
ANNUAL TOTAL	9944.44		35152.9			
ANNUAL MEAN	27.2		96.3		63.7	
HIGHEST ANNUAL MEAN					339	1983
LOWEST ANNUAL MEAN					11.6	1977
HIGHEST DAILY MEAN	952	Feb 15	3450	Jan 13	5270	Jan 5 1982
LOWEST DAILY MEAN	.84	Jul 6	1.6	Nov 29	.33	Jul 11 1990
ANNUAL SEVEN-DAY MINIMUM	1.1	Jul 6	1.9	Nov 8	1.1	Jul 6 1992
INSTANTANEOUS PEAK FLOW			6100	Jan 13	11400	Jan 5 1982
INSTANTANEOUS PEAK STAGE			17.81	Jan 13	22.61	Jan 5 1982
ANNUAL RUNOFF (AC-FT)	19720		69730		46150	
10 PERCENT EXCEEDS	50		214		71	
50 PERCENT EXCEEDS	4.2		23		17	
90 PERCENT EXCEEDS	2.1		3.6		3.9	

11179000 ALAMEDA CREEK NEAR NILES, CA

LOCATION.--Lat 37°35'14", long 121°57'35", in NW 1/4 sec.15, T.4 S., R.1 W., Alameda County, Hydrologic Unit 18050004, on right bank 0.3 mi downstream from railroad bridge, 1.2 mi northeast of Niles, and 8.3 mi downstream from James B. Turner Dam on San Antonio Creek.

DRAINAGE AREA.--633 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1891 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Published as "at Niles Dam" 1891-1900 and as "at Sunolglen" 1901-21.

REVISED RECORDS.--WSP 1315-B: 1921. WSP 1515: 1951-52, 1956. WSP 1565: 1945. WDR CA-86-2: 1984(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 85.65 ft above sea level. Prior to 1901, nonrecording gage at site 1 mi upstream at different datum. From 1901 to Sept. 30, 1914, nonrecording gage; Oct. 1, 1914, to Sept. 30, 1916, water-stage recorder at site 4.5 mi upstream at different datum; Oct. 1, 1916, to Dec. 17, 1923, water-stage recorder at site 800 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1916 by Calaveras Reservoir, although dam not completed until 1925, usable capacity, 96,800 acre-ft, most of which is diverted for San Francisco water supply; since February 1965 by San Antonio Reservoir, capacity, 51,000 acre-ft; and since September 1968 by Del Valle Reservoir, 23 mi upstream, capacity, 77,100 acre-ft. Natural flow of stream affected by water imported from Delta-Mendota Canal beginning in 1962. Other diversions from ground-water basin for irrigation of 9,000 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,000 ft^3/s, Dec. 23, 1955, gage height, 14.9 ft; minimum (water years 1892-1962), no flow at times; minimum daily (water years 1963-93), 0.63 ft^3/s, Oct. 7-10, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,100 ft^3/s, Jan. 13, gage height, 11.25 ft; minimum daily, 5.1 ft^3/s, Sept. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	26	33	677	64	637	419	61	40	31	33	13
2	34	28	41	220	58	541	292	57	30	32	31	12
3	36	27	109	69	57	305	242	59	25	41	24	11
4	36	26	36	42	57	232	210	62	27	39	25	10
5	36	25	17	33	54	185	183	56	58	39	25	8.6
6	35	24	175	70	45	153	158	52	38	36	26	7.5
7	34	24	204	806	46	135	128	76	34	29	30	7.2
8	33	24	54	529	266	125	112	54	30	24	32	7.1
9	32	24	563	156	497	108	110	45	24	21	33	6.2
10	33	30	141	91	136	110	99	39	19	25	28	5.2
11	34	44	223	61	129	123	88	37	17	35	27	5.1
12	34	44	78	120	88	116	83	35	18	34	27	26
13	34	44	33	4660	65	113	82	41	19	30	29	25
14	33	44	24	1580	84	107	80	37	21	28	31	20
15	33	44	20	504	99	102	79	36	22	23	37	17
16	33	44	16	553	98	97	84	36	15	21	37	17
17	35	44	38	650	124	195	140	33	12	25	27	16
18	36	33	49	1110	209	109	151	29	11	27	25	19
19	36	33	24	1160	1800	108	115	29	13	25	25	24
20	37	20	17	1190	3020	143	102	31	32	24	32	27
21	46	8.0	14	1270	2210	132	91	32	43	20	35	22
22	43	6.2	14	1450	1350	117	84	30	31	22	39	17
23	39	26	14	343	1510	144	83	36	17	29	33	13
24	37	33	12	199	1040	339	92	32	12	27	32	10
25	37	34	11	153	633	224	78	74	11	28	31	10
26	37	33	11	138	1940	913	70	53	14	27	26	15
27	37	33	11	113	992	1400	68	40	14	29	26	21
28	28	34	320	95	774	1350	60	35	17	29	26	20
29	85	33	464	83	---	985	58	32	27	28	20	17
30	86	33	295	73	---	575	63	30	30	28	17	15
31	34	---	71	67	---	414	---	49	---	29	14	---
TOTAL	1195	925.2	3132	18265	17445	10337	3704	1348	721	885	883	443.9
MEAN	38.5	30.8	101	589	623	333	123	43.5	24.0	28.5	28.5	14.8
MAX	86	44	563	4660	3020	1400	419	76	58	41	39	27
MIN	28	6.2	11	33	45	97	58	29	11	20	14	5.1
AC-FT	2370	1840	6210	36230	34600	20500	7350	2670	1430	1760	1750	880

11179000 ALAMEDA CREEK NEAR NILES, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1961, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.61	21.0	101	185	322	213	156	18.9	8.19	5.46	3.26	3.14
MAX	36.5	581	1469	2578	2431	1439	2323	95.5	46.1	50.1	47.5	48.9
(WY)	1936	1951	1956	1952	1938	1938	1958	1941	1938	1935	1935	1935
MIN	.000	.000	.000	.22	.71	.17	1.08	.11	.000	.000	.000	.000
(WY)	1925	1926	1931	1949	1948	1931	1929	1934	1931	1929	1925	1925

SUMMARY STATISTICS	WATER YEARS 1925 - 1961	
ANNUAL MEAN	85.4	
HIGHEST ANNUAL MEAN	401	1952
LOWEST ANNUAL MEAN	.90	1961
HIGHEST DAILY MEAN	23900	Dec 23 1955
LOWEST DAILY MEAN	.00	Oct 1 1924
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 1 1924
INSTANTANEOUS PEAK FLOW	29000	Dec 23 1955
INSTANTANEOUS PEAK STAGE	14.9	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	61830	
10 PERCENT EXCEEDS	91	
50 PERCENT EXCEEDS	2.7	
90 PERCENT EXCEEDS	.00	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	28.2	56.0	101	223	367	319	142	55.4	46.7	42.6	41.6	33.3
MAX	78.6	247	434	1335	1928	2725	1163	318	154	62.9	65.9	62.1
(WY)	1992	1984	1984	1983	1983	1983	1982	1983	1973	1981	1972	1981
MIN	9.91	23.1	20.1	28.4	28.9	32.5	18.3	18.6	16.3	20.6	16.8	2.51
(WY)	1979	1970	1979	1985	1977	1977	1991	1971	1978	1974	1974	1984

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1970 - 1993	
ANNUAL TOTAL	21248.8		59284.1			
ANNUAL MEAN	58.1		162		120	
HIGHEST ANNUAL MEAN					621	1983
LOWEST ANNUAL MEAN					31.5	1977
HIGHEST DAILY MEAN	1620	Feb 15	4660	Jan 13	9360	Feb 19 1986
LOWEST DAILY MEAN	1.4	Jul 11	5.1	Sep 11	.63	Oct 7 1984
ANNUAL SEVEN-DAY MINIMUM	5.6	Jul 7	6.7	Sep 5	.66	Oct 4 1984
INSTANTANEOUS PEAK FLOW			10100	Jan 13	16400	Feb 19 1986
INSTANTANEOUS PEAK STAGE			11.25	Jan 13	14.77	Feb 19 1986
ANNUAL RUNOFF (AC-FT)	42150		117600		86930	
10 PERCENT EXCEEDS	65		341		155	
50 PERCENT EXCEEDS	41		36		42	
90 PERCENT EXCEEDS	17		17		16	

11179000 ALAMEDA CREEK NEAR NILES, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1906, 1952-73, 1975 to September 1993 (discontinued).
CHEMICAL DATA: Water years 1906, 1952-67, 1969, 1975-79.
SPECIFIC CONDUCTANCE: Water years 1956-57, 1959-62, 1976 to September 1993 (discontinued).
WATER TEMPERATURE: Water years 1956-73, 1976-78.
SEDIMENT DATA: Water years 1957-73.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1956 to July 1957, August 1959 to September 1962, October 1975 to September 1993 (discontinued).
WATER TEMPERATURE: July 1956 to September 1973, October 1975 to September 1978.

INSTRUMENTATION.--Water-quality monitor since October 1975. Digital recorder set for 1-hour-intervel punches.

REMARKS.--Interruptions in record were due to malfunction of recording instruments. Specific conductance affected by regulation of imported water.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 1,530 microsiemens, Nov. 19, 1977; minimum recorded, 122 microsiemens, Jan. 22, 1983.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 1,510 microsiemens, Dec. 28; minimum recorded, 162 microsiemens, Feb. 8, 9.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	799	618	868	814	706	212	---	---	---	---
2	---	---	752	724	869	808	297	274	---	---	---	---
3	---	---	738	730	844	485	297	278	---	---	---	---
4	---	---	754	720	601	536	283	280	---	---	---	---
5	---	---	758	744	609	588	284	281	---	---	---	---
6	---	---	760	752	987	356	1240	281	368	358	---	---
7	---	---	779	760	511	356	884	268	368	358	---	---
8	---	---	778	755	595	506	---	---	456	162	---	---
9	---	---	776	765	818	324	381	376	246	162	---	---
10	---	---	794	776	---	---	385	379	273	244	---	---
11	---	---	792	734	---	---	379	354	314	272	---	---
12	---	---	748	736	465	458	1110	350	276	271	---	---
13	---	---	802	737	470	464	812	230	278	275	---	---
14	---	---	810	802	478	469	533	309	311	278	---	---
15	---	---	815	808	488	477	725	533	315	304	---	---
16	662	656	814	808	495	485	582	453	313	305	---	---
17	673	661	812	807	1450	487	825	440	353	307	---	---
18	674	666	834	812	1440	753	720	441	330	182	---	---
19	691	671	845	834	753	551	751	676	---	---	---	---
20	743	690	842	837	551	529	723	273	---	---	---	---
21	931	743	892	842	530	523	557	287	---	---	---	---
22	978	731	1090	880	536	521	541	294	---	---	---	---
23	731	716	1370	930	544	529	---	---	---	---	---	---
24	716	690	873	835	552	534	---	---	---	---	---	---
25	705	677	840	832	557	538	---	---	---	---	---	---
26	709	705	845	825	561	541	---	---	---	---	---	---
27	708	696	826	816	563	550	---	---	---	---	---	---
28	696	682	845	821	1510	313	---	---	---	---	---	---
29	936	424	842	815	383	274	---	---	---	---	---	---
30	608	424	818	812	371	274	---	---	---	---	---	---
31	618	564	---	---	277	271	---	---	---	---	---	---
MONTH	---	---	1370	618	---	---	---	---	---	---	---	---

11179000 ALAMEDA CREEK NEAR NILES, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	978	948	792	765	728	702
2	---	---	---	---	860	782	959	929	813	792	734	713
3	---	---	---	---	795	775	934	890	814	767	742	724
4	---	---	---	---	909	795	903	869	785	716	748	733
5	---	---	---	---	---	---	873	853	760	730	749	723
6	---	---	---	---	---	---	856	842	760	672	744	717
7	---	---	---	---	865	817	849	833	732	690	743	729
8	---	---	---	---	850	800	844	817	748	723	790	743
9	---	---	---	---	800	748	837	785	748	720	821	788
10	---	---	---	---	910	786	804	774	739	694	841	815
11	---	---	---	---	883	752	780	721	712	667	851	824
12	---	---	---	---	957	805	806	764	693	670	831	811
13	---	---	---	---	827	765	818	777	700	678	840	822
14	---	---	884	831	856	789	817	764	702	685	848	825
15	---	---	862	828	891	833	782	753	702	681	842	827
16	---	---	828	795	873	831	774	751	700	675	828	786
17	---	---	832	811	938	852	774	746	699	680	786	751
18	---	---	845	828	961	937	770	698	701	679	751	706
19	---	---	840	808	---	---	749	709	701	678	720	700
20	---	---	843	792	952	897	821	742	697	674	716	698
21	---	---	792	781	925	876	826	789	696	669	722	702
22	---	---	807	787	909	856	815	751	702	686	722	702
23	---	---	951	807	938	898	782	762	712	695	722	697
24	---	---	910	857	898	857	780	767	718	684	723	699
25	---	---	---	---	940	869	781	750	710	689	717	686
26	---	---	906	807	---	---	774	741	713	671	691	672
27	---	---	807	771	994	957	795	773	728	674	674	644
28	---	---	802	769	957	879	801	784	681	621	659	640
29	---	---	797	767	---	---	801	759	677	650	661	642
30	---	---	769	739	996	947	780	705	680	652	662	646
31	---	---	---	---	---	---	765	719	712	680	---	---
MONTH	---	---	---	---	---	---	978	698	814	621	851	640

11180500 DRY CREEK AT UNION CITY, CA

LOCATION.--Lat 37°36'22", long 122°01'22", in Arroyo de la Alamede Grant, Alameda County, Hydrologic Unit 18050004, on right bank 900 ft downstream from bridge on State Highway 238 in Decoto District in Union City and 1.7 mi upstream from mouth.

DRAINAGE AREA.--9.39 mi^2.

PERIOD OF RECORD.--October 1916 to September 1919 (published as "near Decoto"), April 1959 to current year.

REVISED RECORDS.--WSP 2129: 1962(M), 1963(P), 1965(P). WDR CA-76-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 85.12 ft above sea level, from topographic map. Prior to Apr. 1, 1959, at site 1.4 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,330 ft^3/s, Jan. 26, 1983, gage height, 5.14 ft, from rating curve extended above 600 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 5.27 ft, Oct. 13, 1962, from high-water marks past gage; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 13	0615	*537	*3.79	Feb. 19	2115	141	2.75
Jan. 20	1915	305	3.24	Feb. 26	0500	367	3.40

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	27	2.5	14	5.8	.75	.16	.00	.00	.00
2	.00	.00	.04	8.9	2.3	11	3.8	.70	.09	.00	.00	.00
3	.00	.00	.00	4.2	2.2	8.9	3.3	.78	.05	.00	.00	.00
4	.00	.00	.00	2.8	2.1	7.2	3.2	.77	.30	.00	.00	.00
5	.00	.00	.00	2.2	2.0	6.1	2.8	.66	.50	.00	.00	.00
6	.00	.00	.16	4.0	2.2	5.6	2.5	.62	.20	.00	.00	.00
7	.00	.00	.02	39	3.0	5.0	2.4	.94	.14	.00	.00	.00
8	.00	.00	.00	29	4.9	4.7	2.2	1.5	.08	.00	.00	.00
9	.00	.00	.20	16	5.4	4.2	2.4	.57	.04	.00	.00	.00
10	.00	.00	.06	11	2.6	4.1	2.1	.48	.01	.00	.00	.00
11	.00	.00	.67	6.3	3.9	3.9	2.0	.37	.00	.00	.00	.00
12	.00	.00	.24	21	2.6	3.4	1.8	.35	.00	.00	.00	.00
13	.00	.00	.00	230	2.2	3.3	1.6	.32	.00	.00	.00	.00
14	.00	.00	.00	97	2.0	3.2	1.5	.26	.00	.00	.00	.00
15	.00	.00	.00	29	1.8	2.9	1.5	.27	.00	.00	.00	.00
16	.00	.00	.00	22	1.7	2.9	1.4	.25	.00	.00	.00	.00
17	.00	.00	.00	26	2.2	5.2	2.7	.21	.00	.00	.00	.00
18	.00	.00	.00	28	7.7	4.3	3.2	.17	.00	.00	.00	.00
19	.00	.00	.00	17	78	3.3	1.9	.14	.00	.00	.00	.00
20	.00	.00	.00	44	56	2.8	1.5	.17	.00	.00	.00	.00
21	.00	.00	.00	52	28	2.6	1.3	.17	.00	.00	.00	.00
22	.00	.00	.00	39	20	2.4	1.2	.15	.00	.00	.00	.00
23	.00	.00	.00	19	27	3.9	1.4	.12	.00	.00	.00	.00
24	.00	.00	.00	13	18	6.4	2.0	.34	.00	.00	.00	.00
25	.00	.00	.00	9.3	14	3.6	1.4	.50	.00	.00	.00	.00
26	.00	.00	.00	6.8	101	6.2	1.1	.31	.00	.00	.00	.00
27	.00	.00	.00	5.5	29	5.7	.98	.40	.00	.00	.00	.00
28	.00	.00	.28	4.6	19	5.8	.91	.26	.00	.00	.00	.00
29	.15	.00	.96	4.0	---	4.5	.84	.15	.00	.00	.00	.00
30	.00	.00	1.3	3.2	---	3.9	.79	.12	.00	.00	.00	.00
31	.00	---	.55	2.9	---	3.8	---	.28	---	.00	.00	---
TOTAL	0.15	0.00	4.48	823.7	443.3	154.8	61.52	13.08	1.57	0.00	0.00	0.00
MEAN	.005	.000	.14	26.6	15.8	4.99	2.05	.42	.052	.000	.000	.000
MAX	.15	.00	1.3	230	101	14	5.8	1.5	.50	.00	.00	.00
MIN	.00	.00	.00	2.2	1.7	2.4	.79	.12	.00	.00	.00	.00
AC-FT	.3	.00	8.9	1630	879	307	122	26	3.1	.00	.00	.00

11180500 DRY CREEK AT UNION CITY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.18	.65	2.37	6.95	8.31	6.10	2.87	.55	.16	.030	.014	.004
MAX	6.31	11.3	21.0	31.7	36.8	58.2	20.1	6.45	2.87	.82	.51	.10
(WY)	1963	1984	1974	1973	1983	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1917	1917	1918	1918	1918	1972	1917	1917	1917	1917	1917	1917

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1917 - 1993	
ANNUAL TOTAL	317.26		1502.60			
ANNUAL MEAN	.87		4.12		2.33	
HIGHEST ANNUAL MEAN					13.0	1983
LOWEST ANNUAL MEAN					.002	1977
HIGHEST DAILY MEAN	47	Feb 15	230	Jan 13	335	Jan 21 1970
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1916
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 7	.00	Oct 1	.00	Oct 1 1916
INSTANTANEOUS PEAK FLOW			537	Jan 13	1330	Jan 26 1983
INSTANTANEOUS PEAK STAGE			3.79	Jan 13	5.27	Oct 13 1962
ANNUAL RUNOFF (AC-FT)	629		2980		1690	
10 PERCENT EXCEEDS	1.3		6.6		3.9	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

11180700 PATTERSON CREEK AT UNION CITY, CA

LOCATION.--Lat 37°55'09", long 122°02'50", in Potrero de los Cerritos Grant, Alameda County, Hydrologic Unit 18050004, on right bank 0.1 mi downstream from effluence from Alameda Creek, 0.2 mi upstream from bridge on Interstate 880 (Nimitz Freeway), and 2.0 mi southwest of Decoto District in Union City.
PERIOD OF RECORD.--October 1958 to current year.
GAGE.--Water-stage recorder. Datum of gage is 4.13 ft above sea level. Prior to Oct. 26, 1966, at site 0.2 mi downstream at same datum.
REMARKS.--No estimated daily discharges. Records poor. This stream is a distributary of Alameda Creek. Diversion by Alameda County Water District to percolation ponds between station 11179000 and this station; additional percolation to ground water by placing check dams in channel.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,100 ft^3/s, Feb. 19, 1986, gage height, 18.44 ft; no flow at times in each year.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,500 ft^3/s, Jan. 13, gage height, 15.20 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.50	.00	643	2.9	378	408	4.9	1.7	.00	.00	.00
2	.00	.23	.09	66	3.4	323	296	6.1	1.6	.00	.00	.00
3	.00	.13	3.9	4.1	3.3	184	246	5.7	.64	.00	.00	.00
4	.00	.08	.92	1.9	2.9	122	115	9.5	.50	.00	.00	.00
5	.00	.07	.31	1.2	3.6	100	51	8.2	.75	.00	.00	.00
6	.00	.05	10	3.0	2.0	77	27	6.3	.64	.00	.00	.00
7	.00	.03	9.6	494	2.3	63	9.9	4.6	.64	.00	.00	.00
8	.00	.02	2.1	450	66	59	8.3	3.4	.46	.00	.00	.00
9	.00	.00	333	42	296	83	7.9	1.1	.29	.00	.00	.00
10	.00	.00	51	2.2	52	82	7.8	.94	.18	.00	.00	.00
11	.00	.00	19	.68	4.1	77	7.4	.83	.13	.00	.00	.00
12	.00	.00	5.8	12	2.8	72	6.9	.86	.05	.00	.00	.00
13	.00	.00	1.9	4800	2.4	77	6.5	.87	.02	.00	.00	.00
14	.00	.00	.88	1330	2.3	76	6.4	.35	.00	.00	.00	.00
15	.00	.00	.55	285	2.3	74	10	.21	.00	.00	.00	.00
16	.00	.00	.39	429	6.0	87	35	.16	.00	.00	.00	.00
17	.00	.00	.49	380	136	185	87	.13	.00	.00	.00	.00
18	.00	.00	1.5	748	107	92	117	.11	.00	.00	.00	.00
19	.00	.00	.67	656	1180	30	44	.11	.00	.00	.00	.00
20	.00	.00	.45	657	2280	84	23	.11	.03	.00	.00	.00
21	.00	.00	.37	1070	1470	80	13	.10	.16	.00	.00	.00
22	.00	.00	.32	992	828	67	6.1	.11	.00	.00	.00	.00
23	.00	.00	.32	47	950	196	7.0	.07	.00	.00	.00	.00
24	.00	.00	.32	21	604	403	17	.10	.00	.00	.00	.00
25	.00	.00	.32	10	316	242	19	.35	.03	.00	.00	.00
26	.00	.00	.32	47	1510	673	11	.32	.14	.00	.00	.00
27	.00	.00	.35	41	656	1090	17	.69	.02	.00	.00	.00
28	.00	.00	160	125	394	1090	8.5	1.0	.00	.00	.00	.00
29	4.4	.00	269	30	---	813	4.9	1.0	.00	.00	.00	.00
30	12	.00	454	3.5	---	573	4.2	2.3	.00	.00	.00	.00
31	2.5	---	9.5	3.0	---	408	---	2.4	---	.00	.00	---
TOTAL	18.90	1.11	1337.37	13394.58	10885.3	7960	1627.8	62.92	7.98	0.00	0.00	0.00
MEAN	.61	.037	43.1	432	389	257	54.3	2.03	.27	.000	.000	.000
MAX	12	.50	454	4800	2280	1090	408	9.5	1.7	.00	.00	.00
MIN	.00	.00	.00	.68	2.0	30	4.2	.07	.00	.00	.00	.00
AC-FT	37	2.2	2650	26570	21590	15790	3230	125	16	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1993, BY WATER YEAR (WY)

MEAN	7.08	34.0	75.3	193	299	244	116	21.4	7.10	1.01	.45	1.30
MAX	53.0	404	557	1711	2150	3007	1091	312	120	9.14	8.73	19.1
(WY)	1963	1984	1984	1983	1983	1983	1982	1983	1973	1973	1970	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1959	1959	1959	1959	1961	1960	1959	1959	1959	1959	1959	1959

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1959 - 1993	
ANNUAL TOTAL	5707.60		35295.96			
ANNUAL MEAN	15.6		96.7		82.2	
HIGHEST ANNUAL MEAN					703	1983
LOWEST ANNUAL MEAN					.000	1961
HIGHEST DAILY MEAN	1500	Feb 15	4800	Jan 13	11700	Feb 19 1986
LOWEST DAILY MEAN	.00	May 18	.00	Oct 1	.00	Oct 1 1958
ANNUAL SEVEN-DAY MINIMUM	.00	May 18	.00	Oct 1	.00	Oct 1 1958
INSTANTANEOUS PEAK FLOW			10500	Jan 13	22100	Feb 19 1986
INSTANTANEOUS PEAK STAGE			15.20	Jan 13	18.44	Feb 19 1986
ANNUAL RUNOFF (AC-FT)	11320		70010		59530	
10 PERCENT EXCEEDS	4.4		289		117	
50 PERCENT EXCEEDS	.09		.29		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA

LOCATION.--Lat 37°41'42", long 122°02'38", in San Lorenzo Grant, Alameda County, Hydrologic Unit 18050004, on left bank, 250 ft south of Interstate Highway 580, 0.4 mi southeast of Independant School, and 2.2 mi east of Castro Valley.

DRAINAGE AREA.--18.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 260 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Some regulation of low flow by ponds upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,590 ft^3/s, Jan. 13, 1993, gage height, 8.73 ft; maximum gage height, 9.50 ft, Jan. 24, 1983; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 275 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 9	0430	301	3.51	Feb. 18	2315	327	3.66
Jan. 13	0615	*1,590	*8.73	Feb. 26	0500	463	4.40
Jan. 20	1830	844	6.12				

No flow Oct. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.21	.28	74	14	39	12	2.8	3.7	1.1	.08	.10
2	.02	.04	5.4	15	13	31	7.6	2.6	3.6	1.1	.05	.09
3	.02	.04	1.4	7.9	12	27	7.0	3.3	4.0	1.2	.05	.07
4	.01	.05	.12	6.1	11	23	7.9	2.9	6.1	1.1	.08	.09
5	.01	.05	.05	5.1	11	21	6.7	2.7	4.3	.97	.16	.11
6	.01	.05	18	15	9.5	19	6.3	2.6	3.7	1.0	.19	.24
7	.01	.04	4.6	96	13	17	6.0	2.6	3.7	.98	.32	.18
8	.01	.05	3.2	51	18	16	6.5	2.6	3.7	.97	.30	.13
9	.01	.05	42	26	17	15	6.4	2.6	3.8	.92	.20	.09
10	.00	.05	15	16	10	14	5.5	2.5	3.9	.81	.17	.09
11	.01	.05	5.9	11	14	13	5.1	2.6	4.1	.71	.19	.07
12	.01	.05	1.6	57	9.6	11	4.8	2.6	4.0	.62	.31	.12
13	.01	.05	1.1	669	8.8	10	4.5	2.4	4.1	.62	.27	.11
14	.01	.39	.93	209	8.4	9.7	4.4	2.6	4.1	.54	.29	.10
15	.01	.32	.87	108	7.7	8.4	4.6	2.7	4.1	.54	.28	.09
16	.01	.39	.79	70	7.4	10	4.1	2.8	4.3	.54	.36	.10
17	.01	.07	3.2	94	10	25	9.2	2.9	4.1	.43	.21	.09
18	.01	.07	.82	80	50	16	6.0	3.2	2.7	.34	.15	.14
19	.02	.36	.71	55	186	8.9	4.5	3.3	2.5	.34	.20	.14
20	.63	.09	.66	172	164	7.9	4.0	3.7	2.5	.43	.29	.13
21	1.3	.07	.62	178	92	7.4	3.7	3.9	2.4	.34	.27	.12
22	.03	.17	.62	133	62	6.8	3.5	3.7	2.2	.27	.15	.12
23	.06	.13	.62	80	84	13	6.3	3.8	2.1	.27	.14	.11
24	.03	.13	.82	56	56	13	4.8	7.5	1.8	.22	.10	.08
25	.03	.13	.71	43	47	9.6	3.5	3.9	1.6	.17	.10	.09
26	.03	.13	.79	33	151	17	3.3	3.5	1.4	.15	.09	.08
27	.03	.13	.81	26	69	15	3.2	3.9	1.4	.17	.06	.09
28	.05	.14	26	22	52	12	3.0	3.2	1.4	.17	.06	.08
29	8.5	.12	9.5	19	---	9.2	2.9	2.9	1.3	.22	.07	.11
30	.59	.12	5.7	16	---	8.4	2.9	3.2	1.2	.17	.07	.14
31	.16	---	2.9	15	---	11	---	4.3	---	.12	.08	---
TOTAL	11.66	3.74	155.72	2458.1	1207.4	464.3	160.2	99.8	93.8	17.53	5.34	3.30
MEAN	.38	.12	5.02	79.3	43.1	15.0	5.34	3.22	3.13	.57	.17	.11
MAX	8.5	.39	42	669	186	39	12	7.5	6.1	1.2	.36	.24
MIN	.00	.04	.05	5.1	7.4	6.8	2.9	2.4	1.2	.12	.05	.07
AC-FT	23	7.4	309	4880	2390	921	318	198	186	35	11	6.5

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.96	3.56	7.11	15.8	22.7	18.6	7.25	2.62	1.18	.44	.19	.20
MAX	2.20	16.6	30.1	79.3	81.5	90.7	42.3	13.0	3.89	2.05	.69	.53
(WY)	1992	1984	1984	1993	1986	1983	1982	1983	1983	1983	1983	1986
MIN	.072	.12	.65	.16	.65	.47	.70	.19	.13	.023	.001	.000
(WY)	1989	1993	1990	1991	1989	1990	1990	1991	1990	1989	1988	1988

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1981 - 1993	
ANNUAL TOTAL	1183.24		4680.89			
ANNUAL MEAN	3.23		12.8		6.64	
HIGHEST ANNUAL MEAN					22.8	1983
LOWEST ANNUAL MEAN					.70	1989
HIGHEST DAILY MEAN	121	Feb 15	669	Jan 13	669	Jan 13 1993
LOWEST DAILY MEAN	.00	Oct 10	.00	Oct 10	.00	Aug 28 1981
ANNUAL SEVEN-DAY MINIMUM	.01	Oct 4	.01	Oct 4	.00	Sep 6 1981
INSTANTANEOUS PEAK FLOW			1590	Jan 13	1590	Jan 13 1993
INSTANTANEOUS PEAK STAGE			8.73	Jan 13	9.50	Jan 24 1983
ANNUAL RUNOFF (AC-FT)	2350		9280		4810	
10 PERCENT EXCEEDS	6.7		25		13	
50 PERCENT EXCEEDS	.27		2.5		.65	
90 PERCENT EXCEEDS	.02		.05		.03	

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1980 to current year (storm season only).
WATER TEMPERATURE: December 1980 to current year.
SEDIMENT DATA: December 1980 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: December 1980 to current year.
SUSPENDED-SEDIMENT DISCHARGE: December 1980 to current year.

REMARKS.--Sediment samples were collected on most days where water temperature is published. Zero-bedload discharge observed for flows less than 15 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--
SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 10,000 mg/L, Jan. 4, 1982; minimum daily mean, 0 mg/L, Feb. 26, 1989.
SEDIMENT LOAD (storm season only): Maximum daily, 19,800 tons, Jan. 4, 1982; minimum daily, 0 ton several days in most years.
EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 4,190 mg/L, Jan. 13; minimum daily mean, 3 mg/L, Nov. 17, 18.
SEDIMENT LOAD (storm season only): Maximum daily, 9,110 tons, Jan. 13; 0 ton for many days.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT								
21...	0845	0.34	16.0	23	0.02	--	--	--
29...	1100	42	15.0	629	71	--	--	--
29...	1305	36	15.0	426	41	--	--	--
DEC								
02...	1535	14	8.5	424	16	--	--	--
02...	1655	17	8.5	630	29	--	--	--
09...	1030	22	12.5	1700	101	78	92	94
10...	1435	46	12.5	2360	293	34	44	61
11...	1330	15	11.0	406	16	--	--	--
17...	1510	7.0	10.0	129	2.4	--	--	--
28...	1930	13	9.5	585	21	--	--	--
JAN								
01...	1620	57	9.0	434	67	--	--	--
07...	1010	41	9.0	322	36	--	--	--
13...	1450	636	12.0	6040	10400	21	27	31
19...	1115	56	10.0	134	20	--	--	--
FEB								
02...	1240	12	10.0	74	2.4	--	--	--
MAR								
11...	1215	13	14.0	118	4.1	--	--	--
15...	1505	8.4	14.5	80	1.8	--	--	--
17...	1005	27	14.5	2540	185	53	63	78
27...	1425	26	12.5	400	28	--	--	--
APR								
17...	1700	12	14.0	297	9.6	--	--	--
23...	2045	21	14.0	156	8.8	--	--	--

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT							
21...	--	--	91	--	--	--	--
29...	--	--	96	99	100	--	--
29...	--	--	96	99	100	--	--
DEC							
02...	--	--	98	100	--	--	--
02...	--	--	100	--	--	--	--
09...	98	99	100	--	--	--	--
10...	79	91	96	99	100	--	--
11...	--	--	100	--	--	--	--
17...	--	--	100	--	--	--	--
28...	--	--	100	--	--	--	--
JAN							
01...	--	--	99	100	--	--	--
07...	--	--	99	100	--	--	--
13...	40	52	66	85	96	99	100
19...	--	--	94	--	--	--	--
FEB							
02...	--	--	79	--	--	--	--
MAR							
11...	--	--	72	--	--	--	--
15...	--	--	68	--	--	--	--
17...	93	99	100	--	--	--	--
27...	--	--	99	100	--	--	--
APR							
17...	--	--	98	--	--	--	--
23...	--	--	99	100	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM
MAR							
11...	1230	1	13	14.0	36	66	77
11...	1235	1	13	14.0	19	59	91
11...	1240	1	13	14.0	26	69	93
11...	1245	1	13	14.0	2	4	9
11...	1250	1	13	14.0	17	32	46
11...	1255	1	13	14.0	6	24	75
11...	1300	1	13	14.0	13	39	74

DATE	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
MAR							
11...	83	91	98	100	--	--	--
11...	98	99	100	--	--	--	--
11...	96	99	100	--	--	--	--
11...	16	21	30	44	58	71	100
11...	58	70	87	93	95	95	100
11...	98	100	--	--	--	--	--
11...	95	99	100	--	--	--	--

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
JAN									
07...	1045	1000	1120	0.250	0	1035	1050	30	0.7
07...	1115	1000	1120	0.250	0	1105	1120	30	0.7

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)
JAN								
07...	2	27	27	0.30	38	9.0	0.07	1.3
07...	2	27	27	0.30	36	9.0	0.07	1.3

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM
JAN								
07...	1	5	30	53	78	89	95	100
07...	--	4	48	82	94	98	100	--

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	---	9.5	9.0	---	---	13.0	---	---	---	---	---
2	---	14.5	10.0	---	10.0	---	13.5	---	---	---	---	---
3	---	---	10.5	5.0	---	---	---	---	---	---	---	---
4	---	13.0	---	---	---	---	14.0	---	---	---	---	---
5	14.0	---	---	5.0	---	---	---	---	---	---	---	---
6	---	13.0	10.5	6.5	---	---	---	---	---	---	---	---
7	14.5	---	10.5	9.0	---	---	13.5	---	---	---	---	---
8	---	---	8.5	---	---	---	15.0	---	---	---	---	---
9	16.0	11.0	12.5	8.5	---	---	---	---	---	---	---	---
10	---	---	13.0	8.0	---	---	---	---	---	---	---	---
11	---	13.0	11.0	---	---	14.0	13.5	---	---	---	---	---
12	16.0	---	---	7.5	---	---	12.0	---	---	---	---	---
13	---	13.0	8.5	12.0	---	---	---	---	---	---	---	---
14	14.5	10.0	---	10.5	---	---	12.5	---	---	---	---	---
15	---	---	7.5	11.5	---	14.5	---	---	---	---	---	---
16	14.0	---	---	11.0	---	14.0	13.0	---	---	---	---	---
17	---	14.0	10.0	9.5	---	14.5	14.0	---	---	---	---	---
18	14.5	---	---	---	---	13.5	---	---	---	---	---	---
19	---	11.0	---	10.0	---	---	---	---	---	---	---	---
20	15.0	---	6.0	11.5	---	---	---	---	---	---	---	---
21	16.0	---	---	12.5	---	---	15.0	---	---	---	---	---
22	15.5	10.0	7.0	11.5	---	14.0	13.0	---	---	---	---	---
23	---	---	---	---	---	---	14.0	---	---	---	---	---
24	14.5	8.0	6.0	---	---	14.5	---	---	---	---	---	---
25	---	---	---	10.5	---	---	---	---	---	---	---	---
26	14.5	10.5	---	10.5	---	13.0	14.5	---	---	---	---	---
27	---	---	5.0	---	---	12.5	---	---	---	---	---	---
28	14.5	10.0	9.5	10.0	---	---	15.0	---	---	---	---	---
29	15.0	---	8.5	---	---	---	---	---	---	---	---	---
30	15.0	---	---	---	---	15.0	16.0	---	---	---	---	---
31	---	---	9.0	9.0	---	14.0	---	---	---	---	---	---

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.02	17	.00	.21	102	.09	.28	14	.01
2	.02	15	.00	.04	29	.00	5.4	154	4.3
3	.02	14	.00	.04	18	.00	1.4	100	.83
4	.01	13	.00	.05	13	.00	.12	14	.00
5	.01	13	.00	.05	19	.00	.05	9	.00
6	.01	17	.00	.05	26	.00	18	658	135
7	.01	22	.00	.04	23	.00	4.6	65	1.5
8	.01	17	.00	.05	19	.00	3.2	57	2.7
9	.01	13	.00	.05	16	.00	42	1730	609
10	.00	18	.00	.05	20	.00	15	370	41
11	.01	28	.00	.05	26	.00	5.9	260	4.7
12	.01	44	.00	.05	24	.00	1.6	138	.63
13	.01	41	.00	.05	21	.00	1.1	43	.12
14	.01	33	.00	.39	34	.08	.93	21	.05
15	.01	26	.00	.32	12	.01	.87	14	.03
16	.01	20	.00	.39	4	.00	.79	9	.02
17	.01	16	.00	.07	3	.00	3.2	65	.93
18	.01	14	.00	.07	3	.00	.82	18	.04
19	.02	10	.00	.36	26	.06	.71	12	.02
20	.63	21	.92	.09	8	.00	.66	9	.02
21	1.3	36	.45	.07	6	.00	.62	9	.02
22	.03	6	.00	.17	11	.01	.62	9	.02
23	.06	20	.01	.13	8	.00	.62	8	.01
24	.03	12	.00	.13	9	.00	.82	16	.05
25	.03	19	.00	.13	11	.00	.71	10	.02
26	.03	28	.00	.13	13	.00	.79	10	.02
27	.03	28	.00	.13	13	.00	.81	9	.02
28	.05	31	.00	.14	13	.00	26	758	121
29	8.5	171	11	.12	13	.00	9.5	364	11
30	.59	29	.12	.12	14	.00	5.7	72	1.5
31	.16	22	.05	---	---	---	2.9	13	.11
TOTAL	11.66	---	12.55	3.74	---	0.25	155.72	---	934.67

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	74	564	178	14	76	2.8	39	195	20
2	15	126	5.7	13	74	2.5	31	185	16
3	7.9	27	.61	12	72	2.4	27	176	13
4	6.1	13	.22	11	71	2.2	23	167	10
5	5.1	8	.11	11	79	2.4	21	158	8.9
6	15	171	15	9.5	55	1.4	19	150	7.5
7	96	587	180	13	53	1.9	17	142	6.5
8	51	112	17	18	94	6.3	16	135	5.8
9	26	114	7.7	17	79	4.6	15	128	5.0
10	16	68	3.0	10	17	.48	14	123	4.5
11	11	31	.93	14	31	1.2	13	117	4.1
12	57	250	157	9.6	20	.53	11	107	3.3
13	669	4190	9110	8.8	15	.36	10	98	2.8
14	209	1430	894	8.4	12	.26	9.7	89	2.3
15	108	496	150	7.7	9	.20	8.4	80	1.8
16	70	200	39	7.4	9	.18	10	160	8.7
17	94	496	151	10	25	.72	25	1740	223
18	80	276	62	50	281	141	16	676	34
19	55	135	20	186	843	476	8.9	185	4.5
20	172	938	1240	164	671	330	7.9	159	3.4
21	178	1030	562	92	288	73	7.4	141	2.8
22	133	702	285	62	197	33	6.8	124	2.3
23	80	263	58	84	405	115	13	191	8.5
24	56	143	22	56	254	39	13	247	9.6
25	43	77	9.0	47	146	19	9.6	171	5.6
26	33	42	3.8	151	980	627	17	287	14
27	26	37	2.6	69	339	64	15	266	13
28	22	38	2.2	52	255	36	12	177	5.6
29	18	47	2.4	---	---	---	9.2	144	3.6
30	16	61	2.7	---	---	---	8.4	116	2.6
31	15	75	3.1	---	---	---	11	163	6.9
TOTAL	2458.1	---	13184.07	1207.4	---	1983.43	464.3	---	459.6

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL	
1	12	173	5.7
2	7.6	103	2.1
3	7.0	89	1.7
4	7.9	93	2.1
5	6.7	83	1.5
6	6.3	86	1.5
7	6.0	86	1.4
8	6.5	83	1.5
9	6.4	54	.94
10	5.5	46	.69
11	5.1	40	.55
12	4.8	31	.40
13	4.5	33	.41
14	4.4	34	.41
15	4.6	48	.60
16	4.1	52	.57
17	9.2	179	5.7
18	6.0	90	1.5
19	4.5	42	.52
20	4.0	29	.31
21	3.7	24	.24
22	3.5	22	.21
23	6.3	50	1.6
24	4.8	67	.91
25	3.5	45	.43
26	3.3	36	.33
27	3.2	31	.26
28	3.0	25	.21
29	2.9	21	.17
30	2.9	18	.14
31	---	---	---
TOTAL	160.2	---	34.60
PERIOD	4461.12		16609.17

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1992	11.66	12.55	0	13
NOVEMBER	3.74	0.25	0	0
DECEMBER	155.72	934.67	9	944
JANUARY 1993	2458.10	13184.07	312	13500
FEBRUARY	1207.40	1983.43	128	2110
MARCH	464.30	459.60	2	462
APRIL	160.20	34.60	0	35
PERIOD	4461.12	16609.17	451	17064

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA

LOCATION.--Lat 37°42'55", long 122°03'12", in San Lorenzo (Castro) Grant, Alameda County, Hydrologic Unit 18050004, on left bank 0.9 mi upstream from Cull Creek Dam and 1.1 mi northeast of Castro Valley Post Office.

DRAINAGE AREA.--5.79 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1978 to current year.

REVISED RECORDS.--WDR CA-80-2: 1979(P).

GAGE.--Water-stage recorder and crest-stage gage. Elevetion of gege is 450 ft above sea level, from topographic map.

REMARKS.--Records poor. No storage or diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,690 ft^3/s, Jan. 5, 1982, gage height, 8.71 ft; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 13	0600	*953	*6.14	Jan. 20	1745	772	5.56

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	13	5.3	10	10	.98	.48	.04	.00	.00
2	.00	.00	.02	7.6	4.6	8.6	7.1	.98	.40	.04	.00	.00
3	.00	.00	.02	4.6	4.2	7.9	6.2	1.1	.38	.04	.00	.00
4	.00	.00	.00	3.8	3.3	7.0	5.8	1.1	.47	.04	.00	.00
5	.00	.00	.00	3.3	2.4	7.1	5.4	.98	.46	.04	.00	.00
6	.00	.00	.13	5.9	2.4	6.6	5.0	.98	.32	.04	.00	.00
7	.00	.00	.05	e53	2.5	6.0	4.0	.93	.32	.03	.00	.00
8	.00	.00	.04	22	3.3	5.4	3.2	.72	.32	.03	.00	.00
9	.00	.00	12	17	4.7	5.1	2.7	.71	.32	.03	.00	.00
10	.00	.00	3.4	15	3.0	4.9	2.4	.71	.32	.03	.00	.00
11	.00	.00	3.8	15	3.1	4.9	2.4	.71	.31	.03	.00	.00
12	.00	.00	1.8	27	2.5	4.7	2.2	.71	.26	.03	.00	.00
13	.00	.00	1.0	315	2.4	4.1	2.0	.71	.21	.03	.00	.00
14	.00	.00	.69	56	2.2	4.1	1.9	.70	.21	.03	.00	.00
15	.00	.00	.58	21	2.2	4.2	1.8	.59	.21	.02	.00	.00
16	.00	.00	.49	17	1.9	4.8	1.8	.59	.21	.01	.00	.00
17	.00	.00	1.3	22	2.0	13	2.4	.59	.21	.01	.00	.00
18	.00	.00	.81	18	7.4	11	2.0	.59	.16	.01	.00	.00
19	.00	.00	.59	12	29	5.7	1.7	.59	.18	.01	.00	.00
20	.00	.00	.49	113	24	4.9	1.7	.59	.14	.01	.00	.00
21	.00	.00	.49	73	19	6.9	1.7	.59	.10	.01	.00	.00
22	.00	.00	.49	39	14	5.6	1.1	.51	.09	.01	.00	.00
23	.00	.00	.49	22	33	7.6	1.4	.49	.09	.01	.00	.00
24	.00	.00	.49	18	23	6.3	2.0	.66	.09	.01	.00	.00
25	.00	.00	.49	15	20	3.8	1.1	.94	.09	.01	.00	.00
26	.00	.00	.49	13	34	12	1.1	.56	.09	.00	.00	.00
27	.00	.00	.49	11	15	9.9	1.1	.49	.09	.00	.00	.00
28	.00	.00	5.8	9.4	14	8.9	.98	.47	.06	.00	.00	.00
29	.04	.00	15	7.0	---	4.4	.98	.40	.04	.00	.00	.00
30	.02	.00	7.7	5.8	---	4.6	.98	.40	.04	.00	.00	.00
31	.00	---	3.3	5.6	---	8.3	---	.56	---	.00	.00	---
TOTAL	0.06	0.00	62.44	980.0	284.4	208.3	84.14	21.63	6.67	0.60	0.00	0.00
MEAN	.002	.000	2.01	31.6	10.2	6.72	2.80	.70	.22	.019	.000	.000
MAX	.04	.00	15	315	34	13	10	1.1	.48	.04	.00	.00
MIN	.00	.00	.00	3.3	1.9	3.8	.98	.40	.04	.00	.00	.00
AC-FT	.1	.00	124	1940	564	413	167	43	13	1.2	.00	.00

e Estimated.

11180860 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.057	1.02	2.68	7.74	11.6	8.77	2.74	.71	.21	.054	.011	.006
MAX	.45	6.00	14.0	35.5	39.7	54.3	16.8	3.56	.95	.25	.12	.079
(WY)	1983	1984	1984	1982	1982	1983	1982	1983	1983	1982	1983	1983
MIN	.000	.000	.001	.000	.045	.13	.055	.016	.007	.000	.000	.000
(WY)	1979	1987	1990	1991	1991	1988	1990	1988	1988	1981	1979	1979

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1979 - 1993	
ANNUAL TOTAL	318.94		1648.24			
ANNUAL MEAN	.87		4.52		2.93	
HIGHEST ANNUAL MEAN					10.3	1983
LOWEST ANNUAL MEAN					.054	1990
HIGHEST DAILY MEAN	32	Feb 12	315	Jan 13	445	Feb 15 1982
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1978
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 9	.00	Oct 1	.00	Oct 1 1978
INSTANTANEOUS PEAK FLOW			953	Jan 13	1690	Jan 5 1982
INSTANTANEOUS PEAK STAGE			6.14	Jan 13	8.71	Jan 5 1982
ANNUAL RUNOFF (AC-FT)	633		3270		2120	
10 PERCENT EXCEEDS	2.2		11		4.8	
50 PERCENT EXCEEDS	.01		.32		.08	
90 PERCENT EXCEEDS	.00		.00		.00	

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water yeers 1979 to current year (storm seeson only).
WATER TEMPERATURE: Water years 1979 to current year.
SEDIMENT DATA: Weter yesrs 1979 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1978 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1978 to current year.

REMARKS.--Zero bedload discharge observed et flows less than 4.1 ft^3/s. Sediment samplee were collected on most days where a water temperature is published.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATION: Maximum daily mean, 24,400 mg/L, Jan. 13, 1993; minimum daily mean, no flow many days during most yeers.
SEDIMENT LOAD: Maximum deily, 26,400 tons, Feb. 17, 1986; minimum daily, 0 tons many days during most years.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION (storm seeson only): Maximum deily mean, 24,400 mg/L, Jan. 13; minimum daily mean, no flow on many days.
SEDIMENT LOAD (storm season only): Maximum daily, 20,800 tons, Jan. 13; minimum daily, 0 tons on many days.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC								
09...	0910	16	12.0	1120	48	--	--	--
11...	0950	5.2	10.5	205	2.9	--	--	--
28...	0950	4.3	8.0	413	4.8	--	--	--
29...	0825	22	6.5	2630	156	48	62	69
30...	0825	8.2	5.0	196	4.3	--	--	--
30...	1335	7.4	7.5	114	2.3	--	--	--
JAN								
06...	1235	6.0	6.0	57	0.92	--	--	--
06...	1400	6.6	6.5	34	0.61	--	--	--
07...	1215	31	9.5	490	41	--	--	--
07...	1540	71	9.0	5160	989	29	30	33
14...	1050	38	10.0	1760	180	25	33	43
21...	1100	44	12.0	1440	171	27	32	41
28...	0915	9.3	8.0	70	1.8	--	--	--
FEB								
04...	0920	3.9	9.0	18	0.19	--	--	--
04...	1055	4.1	9.0	16	0.18	--	--	--
09...	0740	4.1	9.5	140	1.6	--	--	--
19...	0820	24	11.0	1540	100	33	41	50
26...	0845	45	7.5	3760	457	29	34	40
MAR								
03...	1340	7.9	12.5	94	2.0	--	--	--
09...	1410	5.2	14.5	92	1.3	--	--	--
17...	0845	24	13.5	2490	161	40	53	58
28...	1635	9.2	13.0	78	1.9	--	--	--

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993--Continued

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
DEC								
09...	--	--	92	--	--	--	--	--
11...	--	--	97	99	100	--	--	--
28...	--	--	96	--	--	--	--	--
29...	78	85	89	92	96	100	--	--
30...	--	--	94	97	99	100	--	--
30...	--	--	95	--	--	--	--	--
JAN								
06...	--	--	84	--	--	--	--	--
06...	--	--	91	--	--	--	--	--
07...	--	--	84	89	94	99	100	--
07...	45	57	66	77	89	97	100	--
14...	54	66	76	84	91	96	99	100
21...	53	64	73	81	89	95	98	99
28...	--	--	82	--	--	--	--	--
FEB								
04...	--	--	91	--	--	--	--	--
04...	--	--	91	--	--	--	--	--
09...	--	--	98	--	--	--	--	--
19...	60	69	76	82	88	97	100	--
26...	50	60	68	78	88	94	97	98
MAR								
03...	--	--	80	--	--	--	--	--
09...	--	--	52	--	--	--	--	--
17...	72	83	88	92	96	99	100	--
28...	--	--	85	--	--	--	--	--

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR						
12...	1500	2.4	14.0	78	0.51	83
14...	1430	1.8	13.5	17	0.08	70

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
DEC									
11...	1010	1000	1120	0.250	0	1000	1020	60	0.4
11...	1035	1000	1120	0.250	0	1025	1045	60	0.4
30...	1400	1000	1120	0.250	0	1350	1405	30	0.3
30...	1425	1000	1120	0.250	0	1410	1440	30	0.3
JAN									
06...	1445	1000	1120	0.250	0	1435	1450	30	0.3
06...	1515	1000	1120	0.250	0	1510	1520	30	0.3
14...	1110	1000	1120	0.250	0	1100	1120	15	0.5
14...	1130	1000	1120	0.250	0	1120	1135	15	0.5
MAR									
09...	1555	1000	1120	0.250	0	1545	1605	60	0.5
09...	1625	1000	1120	0.250	0	1615	1640	60	0.5

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VER-TICALS IN COM-POSITE SAMPLE (NUM)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY)
DEC								
11...	2	17	17	1.40	5.3	10.5	0.06	0.54
11...	2	17	17	1.40	5.2	10.5	0.10	0.54
30...	2	27	27	1.40	6.9	7.5	0.63	5.6
30...	2	27	27	1.40	6.7	7.5	0.73	5.6
JAN								
06...	2	21	21	1.60	8.6	6.5	0.11	0.67
06...	2	21	21	1.60	8.6	6.5	0.10	0.67
14...	2	26	26	0.50	39	10.0	3.18	42
14...	2	26	26	0.50	37	10.0	3.28	42
MAR								
09...	2	17	17	1.75	5.7	14.5	0.09	0.72
09...	2	17	17	1.75	5.7	14.5	0.08	0.72

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
DEC								
11...	3	24	45	60	76	90	100	--
11...	2	17	35	54	72	88	93	100
30...	1	6	28	55	80	94	100	--
30...	1	6	22	45	71	93	100	--
JAN								
06...	2	12	27	44	62	78	85	100
06...	2	10	21	33	46	59	76	100
14...	4	17	30	44	65	84	96	100
14...	4	15	31	50	70	86	97	100
MAR								
09...	2	28	67	85	94	99	100	--
09...	2	28	70	88	96	99	100	--

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	9.0	---	---	---	---	---	---
2	---	---	---	---	9.0	8.0	---	---	---	---	---	---
3	---	---	---	---	---	12.5	---	---	---	---	---	---
4	---	---	---	---	9.0	12.5	14.5	---	---	---	---	---
5	---	---	---	---	---	13.0	11.5	---	---	---	---	---
6	---	---	---	6.5	12.5	---	---	---	---	---	---	---
7	---	---	---	9.0	---	16.5	---	---	---	---	---	---
8	---	---	---	---	11.5	---	---	---	---	---	---	---
9	---	---	12.0	7.5	9.5	14.5	---	---	---	---	---	---
10	---	---	---	---	---	10.5	15.0	---	---	---	---	---
11	---	---	10.5	---	12.5	---	---	---	---	---	---	---
12	---	---	---	---	---	15.0	14.0	15.0	---	---	---	---
13	---	---	5.0	---	10.0	---	---	---	---	---	---	---
14	---	---	---	10.0	---	---	13.5	---	---	---	---	---
15	---	---	---	11.0	10.0	14.5	---	---	---	---	---	---
16	---	---	---	11.0	---	---	---	---	---	---	---	---
17	---	---	8.0	9.5	10.0	13.5	---	---	---	---	---	---
18	---	---	---	---	12.0	12.5	15.0	---	---	---	---	---
19	---	---	---	10.0	11.0	---	---	---	---	---	---	---
20	---	---	---	11.5	9.5	16.0	---	---	---	---	---	---
21	---	---	---	12.0	11.0	16.0	15.0	---	---	---	---	---
22	---	---	---	11.5	9.0	---	---	---	---	---	---	---
23	---	---	---	---	10.0	14.0	---	---	---	---	---	---
24	---	---	---	---	10.5	14.0	---	---	---	---	---	---
25	---	---	---	---	---	11.5	15.0	---	---	---	---	---
26	---	---	---	---	7.5	13.0	---	---	---	---	---	---
27	---	---	---	---	8.0	---	---	---	---	---	---	---
28	---	---	8.0	8.0	11.0	13.0	16.0	---	---	---	---	---
29	---	---	6.5	11.0	---	11.0	---	---	---	---	---	---
30	---	---	5.0	10.0	---	---	18.0	---	---	---	---	---
31	---	---	---	9.0	---	14.0	---	---	---	---	---	---

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00	e0	.00	.00	e0	.00	.00	e0	.00
2	.00	e0	.00	.00	e0	.00	.02	e0	.00
3	.00	e0	.00	.00	e0	.00	.02	e0	.00
4	.00	e0	.00	.00	e0	.00	.00	0	.00
5	.00	e0	.00	.00	e0	.00	.00	e0	.00
6	.00	e0	.00	.00	e0	.00	.13	e5	.00
7	.00	e0	.00	.00	e0	.00	.05	e0	.00
8	.00	e0	.00	.00	e0	.00	.04	e1	.00
9	.00	e0	.00	.00	e0	.00	12	1390	47
10	.00	e0	.00	.00	e0	.00	3.4	e120	1.1
11	.00	e0	.00	.00	e0	.00	3.8	129	1.3
12	.00	e0	.00	.00	e0	.00	1.8	e70	.34
13	.00	0	.00	.00	e0	.00	1.0	30	.08
14	.00	e0	.00	.00	e0	.00	.69	e19	.04
15	.00	e0	.00	.00	e0	.00	.58	e16	.02
16	.00	e0	.00	.00	e0	.00	.49	e14	.02
17	.00	e0	.00	.00	e0	.00	1.3	16	.06
18	.00	e0	.00	.00	e0	.00	.81	e8	.02
19	.00	e0	.00	.00	0	.00	.59	e8	.01
20	.00	e0	.00	.00	e0	.00	.49	e9	.01
21	.00	e0	.00	.00	e0	.00	.49	e8	.01
22	.00	e0	.00	.00	e0	.00	.49	e7	.01
23	.00	e0	.00	.00	e0	.00	.48	e7	.01
24	.00	e0	.00	.00	e0	.00	.49	e7	.01
25	.00	e0	.00	.00	e0	.00	.49	e8	.01
26	.00	e0	.00	.00	e0	.00	.49	e8	.01
27	.00	e0	.00	.00	e0	.00	.49	e7	.01
28	.00	e1	.00	.00	e0	.00	5.8	2050	33
29	.04	e0	.00	.00	e0	.00	15	2840	115
30	.02	e0	.00	.00	e0	.00	7.7	227	4.7
31	.00	e0	.00	---	---	---	3.3	e27	.24
TOTAL	0.06	---	0.00	0.00	---	0.00	62.44	---	203.01
		JANUARY			FEBRUARY			MARCH	
1	13	e213	7.3	5.3	e22	.31	10	112	3.0
2	7.6	e42	.86	4.6	26	.32	8.6	93	2.1
3	4.6	e18	.22	4.2	e15	.17	7.9	108	2.3
4	3.8	e13	.13	3.3	15	.13	7.0	90	1.7
5	3.3	e10	.09	2.4	e15	.10	7.1	91	1.8
6	5.9	454	10	2.4	34	.22	6.6	e81	1.5
7	e53	4990	957	2.5	e39	.26	6.0	70	1.2
8	22	e124	7.3	3.3	123	1.1	5.4	e57	.83
9	17	84	3.9	4.7	254	3.2	5.1	81	1.1
10	15	e63	2.5	3.0	e82	.67	4.9	69	.91
11	15	e62	2.4	3.1	88	.74	4.9	e60	.79
12	27	e826	61	2.5	e60	.41	4.7	52	.66
13	315	e24400	20800	2.4	55	.35	4.1	e41	.45
14	56	5520	827	2.2	e48	.29	4.1	e37	.41
15	21	624	36	2.2	46	.27	4.2	39	.44
16	17	390	18	1.9	e45	.23	4.8	e49	.66
17	22	712	43	2.0	62	.34	13	1170	39
18	18	e436	21	7.4	1550	31	11	195	5.8
19	12	228	7.6	29	1670	131	5.7	e120	1.8
20	113	19000	5830	24	970	63	4.9	250	3.3
21	73	3340	652	19	406	21	6.9	160	3.0
22	39	1840	192	14	305	11	5.6	e80	1.2
23	22	e500	30	33	736	66	7.6	233	4.8
24	18	e275	13	23	274	17	6.3	159	2.7
25	15	e180	7.3	20	e203	11	3.8	70	.72
26	13	e145	5.1	34	2850	266	12	239	7.7
27	11	e74	2.2	15	216	9.0	9.9	e97	2.6
28	9.4	56	1.4	14	167	6.4	8.9	64	1.5
29	7.0	47	.88	---	---	---	4.4	74	.87
30	5.8	42	.66	---	---	---	4.6	e104	1.3
31	5.6	24	.37	---	---	---	8.3	102	2.3
TOTAL	980.0	---	29540.21	284.4	---	641.51	208.3	---	98.44

e Estimeted.

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL	
1	10	e112	3.1
2	7.1	e59	1.1
3	6.2	e47	.80
4	5.8	42	.67
5	5.4	37	.55
6	5.0	e33	.46
7	4.0	e23	.25
8	3.2	e35	.35
9	2.7	e40	.28
10	2.4	36	.23
11	2.4	e33	.21
12	2.2	49	.29
13	2.0	e42	.23
14	1.9	17	.09
15	1.8	e17	.08
16	1.8	e17	.08
17	2.4	e27	.18
18	2.0	68	.37
19	1.7	e42	.19
20	1.7	e32	.15
21	1.7	30	.13
22	1.1	e29	.09
23	1.4	e40	.15
24	2.0	e69	.37
25	1.1	32	.10
26	1.1	e32	.10
27	1.1	e35	.10
28	.98	46	.12
29	.98	e46	.12
30	.98	46	.12
31	---	---	---
TOTAL	84.14	---	11.06
PERIOD	1619.34		30494.23

e Estimated.

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1992	0.06	0.00	0	0
NOVEMBER	0.00	0.00	0	0
DECEMBER	62.44	203.01	58	261
JANUARY 1993	980.00	29540.21	1320	30900
FEBRUARY	284.40	641.51	216	858
MARCH	208.30	98.44	163	261
APRIL	84.14	11.06	23	34
PERIOD	1619.34	30494.23	1780	32314

11181006 CASTRO VALLEY CREEK AT KNOX STREET, AT CASTRO VALLEY, CA

LOCATION.--Lat 37°40'56", long 122°04'44", in San Lorenzo (Castro) Grant, Alameda County, Hydrologic Unit 18050004, on left bank at Knox Street, 1.0 mi southeast of Castro Valley Post Office.

DRAINAGE AREA.--2.20 mi^2.

PERIOD OF RECORD.--October 1978 to September 1980, October 1989 to September 1993 (discontinued).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 130 ft above sea level, from topographic map.

REMARKS.--Records poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 873 ft^3/s, Oct. 23, 1989, and Jan. 20, 1993, gage height, 6.69 ft, from rating curve extended above 160 ft^3/s; no flow some days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 9	0445	327	4.43	Jan. 20	1800	*873	*6.69
Jan. 13	0430	303	4.29				

Minimum daily, 0.01 ft^3/s, Oct. 5, 7, 8, 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	e.17	.16	e25	e.54	1.4	e1.1	e.32	.22	.13	e.11	.11
2	.04	.05	e5.5	1.2	.56	1.2	e.64	e.31	.22	.13	e.11	.16
3	.03	.05	.58	.77	e.40	1.1	e.56	e1.1	.12	.11	e.09	.19
4	.03	.04	.14	.53	e.36	.77	e1.5	e.30	2.5	.10	.07	.09
5	.01	.05	.08	.36	e1.0	.76	e.52	e.32	.18	.09	.08	.07
6	.02	.06	e17	8.1	e.34	.68	e.52	e.30	.22	.16	.08	.06
7	.01	.06	5.8	e18	2.8	.49	e.52	e.30	.22	e.09	.08	.06
8	.01	.05	5.5	7.6	e5.2	.35	e.96	e.29	.19	e.07	.06	.06
9	.03	.05	36	e1.9	e2.8	.49	e.44	e.29	.19	e.06	.14	.05
10	.01	.05	e10	1.3	e1.4	.51	e.44	e.36	.19	e.05	.12	.05
11	.02	.07	3.9	.78	e2.1	e.39	e.38	e.30	.19	e.06	.08	.05
12	.02	.04	.51	22	.68	e.38	e.37	e.23	.20	e.07	.08	.05
13	.03	.08	.33	e65	.59	e.60	e.36	e.28	.22	e.05	.07	.04
14	.02	.10	.30	e10	.56	e.76	e.36	.17	.23	e.05	.07	.03
15	.04	.10	.24	e5.8	.55	e.34	e.44	.23	.19	e.07	.07	.03
16	.03	.07	.19	2.6	e.34	e4.8	e.48	.18	.19	e.05	.06	.03
17	.02	.10	e3.3	e10	1.8	e8.0	e4.8	.14	.19	e.05	.06	.07
18	.02	.13	.28	e9.5	e13	e3.8	e1.2	.13	.19	e.06	.06	.06
19	.02	.49	.25	1.8	e16	e.68	e.40	.13	.22	e.09	.06	.06
20	2.2	.11	.31	e31	e10	e.52	e.39	.13	.19	e.07	.07	.06
21	1.2	.09	.19	e11	6.9	e.48	e.35	.15	.19	e.06	.67	.06
22	.02	.24	.19	e3.5	e2.2	e.44	e.36	.19	.21	e.06	.09	.14
23	.02	.07	.20	2.6	e11	e6.4	e4.4	.19	.26	e.06	.09	.05
24	.02	.07	.22	2.0	3.3	e2.7	e.68	3.1	.28	e.07	.07	.06
25	.02	.07	.22	1.5	e1.7	e3.7	e.38	.66	.26	e.06	.10	.08
26	.03	.07	.20	1.2	e12	e3.2	e.35	.83	.20	e.11	.10	.09
27	.04	.09	.19	1.1	2.5	e6.0	e.34	.31	.16	e.07	.09	.08
28	.04	.11	18	.93	2.0	e1.1	e.32	.25	.15	e.09	.09	.09
29	e14	e.08	14	.73	---	e.72	e.32	.52	.11	e.16	.09	.12
30	2.0	e.04	2.5	.66	---	e.60	e.34	.86	.13	e.19	.10	.11
31	.06	---	.81	.59	---	e4.0	---	.24	---	e.14	.09	---
TOTAL	20.08	2.85	127.09	249.05	102.62	57.36	24.22	13.11	8.21	2.68	3.20	2.26
MEAN	.65	.095	4.10	8.03	3.66	1.85	.81	.42	.27	.086	.10	.075
MAX	14	.49	36	65	16	8.0	4.8	3.1	2.5	.19	.67	.19
MIN	.01	.04	.08	.36	.34	.34	.32	.13	.11	.05	.06	.03
AC-FT	40	5.7	252	494	204	114	48	26	16	5.3	6.3	4.5

e Estimated.

11181006 CASTRO VALLEY CREEK AT KNOX STREET, AT CASTRO VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.71	.40	1.42	2.86	3.90	1.84	.42	.38	.17	.051	.053	.034
MAX	1.55	.85	4.10	8.03	7.56	4.16	.81	1.05	.38	.086	.10	.075
(WY)	1990	1990	1993	1993	1980	1991	1993	1990	1992	1993	1993	1993
MIN	.015	.095	.028	.098	1.14	.41	.28	.071	.028	.016	.019	.019
(WY)	1979	1993	1990	1991	1990	1990	1990	1992	1979	1979	1979	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1979 - 1993	
ANNUAL TOTAL	408.71		612.73			
ANNUAL MEAN	1.12		1.68		.94	
HIGHEST ANNUAL MEAN					1.68	1993
LOWEST ANNUAL MEAN					.55	1990
HIGHEST DAILY MEAN	36	Dec 9	65	Jan 13	65	Jan 13 1993
LOWEST DAILY MEAN	.01	Aug 29	.01	Oct 5	.00	Sep 18 1990
ANNUAL SEVEN-DAY MINIMUM	.01	Sep 12	.02	Oct 5	.00	Oct 8 1990
INSTANTANEOUS PEAK FLOW			873	Jan 20	873	Oct 23 1989
INSTANTANEOUS PEAK STAGE			6.69	Jan 20	6.69	Oct 23 1989
ANNUAL RUNOFF (AC-FT)	811		1220		679	
10 PERCENT EXCEEDS	2.1		3.8		1.8	
50 PERCENT EXCEEDS	.07		.21		.08	
90 PERCENT EXCEEDS	.02		.05		.01	

11181008 CASTRO VALLEY CREEK AT HAYWARD, CA

LOCATION.--Lat 37°40'48", long 122°04'46", in San Lorenzo (Castro) Grant, Alameda County, Hydrologic Unit 18050004, on left bank 500 ft east of Hayward City Hall, 700 ft upstream from mouth, and 700 ft downstream from small left-bank tributary.

DRAINAGE AREA.--5.51 mi^2.

PERIOD OF RECORD.--October 1971 to current year (seasonal records only, water years 1975-77).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 100 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,350 ft^3/s, Jan. 23, 1983, gage height, 8.51 ft, from rating curve extended above 61 ft^3/s on basis of slope-area measurement at gage height 3.92 ft and step-backwater computation to gage height 10.40 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 13	0435	640	5.89	Jan. 20	1730	*1,260	*8.23

Minimum daily, 0.08 ft^3/s, Oct. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.44	.14	64	1.2	2.2	2.5	.79	.58	.42	.35	.29
2	.13	.22	19	3.7	1.4	1.9	1.6	.78	.55	.41	.32	.31
3	.10	.19	1.5	2.0	.97	2.1	1.4	2.7	.51	.39	.32	.31
4	.10	.17	.26	1.5	.91	1.5	3.7	.76	6.6	.41	.31	.29
5	.09	.23	.21	1.5	2.0	1.4	1.3	.80	.63	.41	.31	.29
6	.09	.26	42	30	.83	1.3	1.3	.74	.51	.40	.32	.31
7	.08	.17	13	52	11	1.3	1.3	.74	.51	.45	.31	.30
8	.09	.17	14	16	13	1.3	2.4	.73	.52	.40	.31	.30
9	.11	.46	82	6.4	5.4	1.1	1.1	.73	.50	.43	.34	.29
10	.10	.14	29	3.1	2.9	1.0	1.1	.99	.49	.37	.36	.31
11	.09	.15	12	1.9	5.0	.98	.94	.85	.54	.40	.37	.31
12	.09	.33	1.6	58	1.2	.94	.92	.69	.53	.39	.31	.32
13	.11	.15	1.0	163	1.0	1.5	.90	.69	.49	.35	.29	.33
14	.10	.15	.83	31	.96	1.9	.89	.67	.52	.37	.29	.29
15	.10	.14	.73	13	.92	.85	1.1	.72	.51	.35	.30	.28
16	.11	.17	.65	5.2	.86	12	1.2	1.0	.56	.36	.31	.27
17	.11	.17	8.3	28	3.5	20	12	.69	.52	.35	.30	.35
18	.10	.18	.83	13	32	9.6	3.0	.70	.51	.37	.32	.31
19	.10	1.4	.71	4.5	40	1.7	1.0	.70	.52	.35	.29	.33
20	4.7	.18	.61	77	27	1.3	.98	.73	.49	.35	.30	.36
21	2.9	.15	.58	32	12	1.2	.87	.69	.55	.35	.77	.30
22	.12	.33	.53	11	5.8	1.1	.91	.68	.47	.33	.29	.35
23	.10	.16	.48	5.4	28	16	11	.70	.48	.35	.29	.27
24	.10	.17	.48	3.8	5.6	6.7	1.7	10	.45	.36	.30	.29
25	.09	.17	.48	2.9	4.5	9.3	.95	.94	.46	.35	.34	.28
26	.10	.16	.48	2.3	32	8.1	.88	2.9	.45	.34	.32	.26
27	.11	.15	.48	1.9	4.3	15	.85	1.3	.44	.36	.32	.24
28	.13	.15	45	1.7	3.0	2.8	.81	.66	.43	.35	.31	.25
29	37	.13	26	1.5	---	1.8	.81	.61	.41	.33	.30	.27
30	6.1	.11	6.8	1.3	---	1.5	.84	1.4	.43	.33	.32	.28
31	.25	---	1.9	1.2	---	10	---	2.6	---	.33	.30	---
TOTAL	53.62	7.15	311.58	639.8	247.25	139.37	60.25	39.68	21.16	11.51	10.19	8.94
MEAN	1.73	.24	10.1	20.6	8.83	4.50	2.01	1.28	.71	.37	.33	.30
MAX	37	1.4	82	163	40	20	12	10	6.6	.45	.77	.36
MIN	.08	.11	.14	1.2	.83	.85	.81	.61	.41	.33	.29	.24
AC-FT	106	14	618	1270	490	276	120	79	42	23	20	18

11181008 CASTRO VALLEY CREEK AT HAYWARD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.77	4.69	5.07	8.31	9.49	7.63	2.77	.88	.52	.38	.35	.55
MAX	4.97	19.0	12.8	24.6	25.5	34.6	12.3	3.23	.78	1.15	1.50	1.62
(WY)	1976	1974	1984	1982	1986	1983	1974	1990	1974	1974	1983	1983
MIN	.15	.24	.24	.39	1.06	.60	.20	.30	.28	.17	.14	.12
(WY)	1978	1993	1990	1991	1977	1988	1977	1992	1980	1991	1980	1980

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1972 - 1993	
ANNUAL TOTAL	1063.56		1550.50			
ANNUAL MEAN	2.91		4.25		3.76	
HIGHEST ANNUAL MEAN					8.76	1983
LOWEST ANNUAL MEAN					1.51	1972
HIGHEST DAILY MEAN	94	Feb 12	163	Jan 13	322	Jan 4 1982
LOWEST DAILY MEAN	.08	Oct 7	.08	Oct 7	.00	Oct 11 1977
ANNUAL SEVEN-DAY MINIMUM	.09	Oct 5	.09	Oct 5	.00	Oct 11 1977
INSTANTANEOUS PEAK FLOW			1260	Jan 20	1350	Jan 23 1983
INSTANTANEOUS PEAK STAGE			8.23	Jan 20	8.51	Jan 23 1983
INSTANTANEOUS LOW FLOW					.08	Oct 7 1992
ANNUAL RUNOFF (AC-FT)	2110		3080		2730	
10 PERCENT EXCEEDS	5.0		11		6.0	
50 PERCENT EXCEEDS	.26		.56		.46	
90 PERCENT EXCEEDS	.15		.15		.17	

11181040 SAN LORENZO CREEK AT SAN LORENZO, CA

LOCATION.--Lat 37°41'03", long 122°08'20", in San Lorenzo (Soto) Grant, Alameda County, Hydrologic Unit 18050004, on left bank 400 ft downstream from Washington Avenue Bridge in San Lorenzo and 1.6 mi upstream from mouth.

DRAINAGE AREA.--44.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to September 1978, October 1987 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 6.13 ft above sea level (levels by Alameda County Flood Control and Water Conservation District).

REMARKS.--No estimated daily discharges. Records good. Flow partly regulated by Cull Creek Reservoir beginning in October 1962 (capacity, 310 acre-ft) and Don Castro Reservoir (capacity, 380 acre-ft) 7 mi upstream beginning in January 1965. A few very small diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,300 ft^3/s, Jan. 13, 1993, gage height, 9.19 ft from rating curve extended above 1,200 ft^3/s; minimum daily, 0.01 ft^3/s, several days in June and July, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 850 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 21	0010	923	5.34	Jan. 7	1440	1,070	5.51
Oct. 29	1005	1,010	5.44	Jan. 13	0800	*5,300	*9.19
Dec. 6	1615	1,720	6.18	Jan. 20	1935	2,640	7.09
Dec. 9	0500	3,390	7.75	Feb. 18	2315	1,480	5.94
Dec. 28	1045	1,020	5.46	Feb. 26	0650	894	5.31
Jan. 1	0520	2,150	6.62				

Minimum daily, 0.25 ft^3/s, Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.48	13	2.7	541	29	56	45	13	28	8.4	.99	.25
2	.49	11	53	57	28	50	35	13	26	7.8	1.0	.28
3	.48	9.8	30	36	27	45	34	17	26	7.6	.94	.38
4	.49	9.2	21	28	24	41	39	12	44	7.9	.99	.34
5	.46	8.7	17	27	24	39	34	9.8	27	7.3	1.0	.34
6	.44	8.6	196	88	22	37	35	9.1	17	6.5	1.0	.44
7	.43	7.5	56	513	33	36	36	8.7	16	6.2	.81	.48
8	.40	7.0	42	158	43	35	36	8.2	17	5.5	.54	.49
9	.45	7.0	576	70	41	34	36	7.8	18	5.5	.56	.49
10	.43	5.9	144	50	26	33	33	7.8	18	4.8	.52	.58
11	.45	5.2	57	42	34	32	32	7.5	19	4.7	.45	.72
12	.52	5.3	27	297	25	31	31	7.5	18	4.2	.40	.75
13	.55	4.4	22	1970	24	31	31	6.8	18	3.7	.56	.91
14	.65	4.0	21	333	22	33	31	5.5	18	3.2	.70	.97
15	.38	3.9	20	126	22	30	31	8.1	17	3.1	.62	1.0
16	.43	4.1	19	85	21	44	29	16	17	2.9	.66	1.2
17	.45	4.0	34	141	26	94	48	18	16	2.7	.56	1.7
18	.49	3.4	22	104	128	54	36	24	15	2.5	.45	2.0
19	.46	4.1	19	61	463	33	25	33	13	2.0	.46	2.2
20	4.6	3.3	18	511	281	31	24	40	13	1.4	.55	2.4
21	38	2.9	18	295	128	30	23	44	14	1.1	.76	2.4
22	11	3.3	18	237	77	29	22	46	13	1.1	.41	2.7
23	9.4	3.0	18	94	175	57	32	44	12	1.1	.43	2.6
24	9.0	2.8	18	66	83	51	30	71	12	1.0	.48	2.4
25	9.2	2.7	18	54	65	41	20	46	11	.99	.49	2.3
26	10	2.5	18	46	259	61	18	38	9.6	.96	.44	1.8
27	10	2.7	18	48	86	70	17	36	9.5	1.0	.43	1.9
28	10	2.7	214	42	67	47	16	31	9.0	1.0	.40	1.7
29	161	2.5	136	37	---	38	15	29	9.9	.95	.39	1.1
30	32	2.6	68	33	---	36	14	29	10	.99	.38	1.0
31	14	---	35	30	---	49	---	40	---	.94	.38	---
TOTAL	327.13	157.1	1975.7	6220	2283	1328	888	726.8	511.0	109.03	18.75	37.82
MEAN	10.6	5.24	63.7	201	81.5	42.8	29.6	23.4	17.0	3.52	.60	1.26
MAX	161	13	576	1970	463	94	48	71	44	8.4	1.0	2.7
MIN	.38	2.5	2.7	27	21	29	14	5.5	9.0	.94	.38	.25
AC-FT	649	312	3920	12340	4530	2630	1760	1440	1010	216	37	75

11181040 SAN LORENZO CREEK AT SAN LORENZO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.93	8.02	23.3	59.8	48.3	37.8	20.3	6.58	3.45	1.52	1.30	1.84
MAX	30.2	38.1	106	201	183	92.7	108	23.4	17.0	3.52	3.25	4.58
(WY)	1992	1974	1971	1993	1969	1975	1974	1993	1993	1993	1969	1975
MIN	.23	1.49	1.41	1.14	2.15	1.83	2.07	.85	.066	.64	.11	.35
(WY)	1978	1991	1990	1991	1977	1972	1976	1972	1977	1990	1977	1988

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1968 - 1993	
ANNUAL TOTAL	6793.64		14582.33			
ANNUAL MEAN	18.6		40.0		18.1	
HIGHEST ANNUAL MEAN					40.9	1974
LOWEST ANNUAL MEAN					2.38	1977
HIGHEST DAILY MEAN	919	Feb 12	1970	Jan 13	2400	Jan 21 1970
LOWEST DAILY MEAN	.35	Sep 11	.25	Sep 1	.01	Jun 12 1977
ANNUAL SEVEN-DAY MINIMUM	.41	Sep 8	.34	Aug 30	.01	Jun 10 1977
INSTANTANEOUS PEAK FLOW			5300	Jan 13	5300	Jan 13 1993
INSTANTANEOUS PEAK STAGE			9.19	Jan 13	9.19	Jan 13 1993
ANNUAL RUNOFF (AC-FT)	13480		28920		13080	
10 PERCENT EXCEEDS	32		66		39	
50 PERCENT EXCEEDS	2.7		16		2.2	
90 PERCENT EXCEEDS	.47		.49		.54	

11181040 SAN LORENZO CREEK AT SAN LORENZO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1989 to September 1993 (storm season only).
WATER TEMPERATURE: October 1989 to September 1993 (discontinued).
SEDIMENT DATA: October 1989 to September 1993 (discontinued).
PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1989 to September 1993 (discontinued).
SUSPENDED-SEDIMENT DISCHARGE: October 1989 to September 1993 (discontinued).
REMARKS.--Sediment samples were collected on most days where water temperature is published. Zero-bedload discharge observed for flows less than 33 ft^3/s.
EXTREMES FOR PERIOD OF RECORD.--
SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 3,830 mg/L, Jan. 13, 1993; minimum daily mean, 1 mg/L, many days in most years.
SEDIMENT LOAD (storm season only): Maximum daily, 26,800 tons, Jan. 13, 1993; minimum daily, 0 tons, many days in 1991 and 1992 and several days in 1993.
EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 3,830 mg/L, Jan. 13; minimum daily mean, 1 mg/L on several days.
SEDIMENT LOAD (storm season only): Maximum daily, 26,800 tons, Jan. 13; minimum daily, 0 tons on several days.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
14...	1010	0.45	17.0	10	0.01	40
NOV						
19...	1550	10	15.0	54	1.5	98
FEB						
03...	1450	29	10.5	16	1.3	93
MAR						
10...	1150	33	14.5	44	3.9	84

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	11.5	16	---	---	---	---	---
2	21	---	11	---	10.5	---	16	---	---	---	---	---
3	---	15	12	6.5	10.5	12	---	---	---	---	---	---
4	24	---	8.5	5.5	---	---	---	---	---	---	---	---
5	---	17	---	---	12	---	15	---	---	---	19.5	---
6	---	---	12.5	8	---	14.5	---	---	---	---	---	---
7	21.5	---	11.5	8.5	---	---	18.5	---	---	---	---	---
8	---	15.5	11.5	9	13.0	---	---	---	---	---	---	---
9	20.5	---	13	9	11.5	---	---	---	---	---	---	---
10	---	11	14	---	11.5	14.5	13.5	---	---	---	---	---
11	17	---	11.5	---	---	---	---	---	---	---	---	---
12	19	11.5	---	7	13.5	16.5	20	---	---	---	---	---
13	---	---	9.5	11.5	---	---	---	---	---	---	---	---
14	17	---	---	11.5	---	---	17	---	---	---	---	---
15	18.5	12	8	11.5	---	15	---	---	---	---	---	---
16	---	---	---	10.5	10.5	---	16	---	---	---	---	---
17	---	11.5	8.5	10.5	11.5	15	14	---	---	---	---	---
18	20.5	---	6.5	---	13	---	---	---	---	---	22	---
19	---	15	---	10.5	11.0	---	17.5	---	---	---	---	---
20	20.5	---	8.5	12	10	---	---	---	---	---	---	---
21	19.5	---	---	12.5	10.5	14.5	16	---	---	---	---	---
22	18	12.5	8	11.5	11	---	---	---	---	---	---	---
23	---	---	---	9.5	10.5	16	---	---	---	---	---	---
24	21	11	7	10	10	14	21.5	---	---	---	---	---
25	---	---	---	---	10	14.5	---	---	---	---	---	---
26	---	---	6	9.5	9	13	20.5	---	---	---	---	---
27	20	---	---	9.5	9	13	---	---	---	---	---	---
28	---	10.5	9.0	---	---	13.5	21.5	---	---	---	---	---
29	15.5	---	7.5	10	---	---	---	---	---	---	---	---
30	18	10.5	8.5	---	---	18	21.5	---	---	---	---	---
31	17.5	---	10.0	9.5	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11181040 SAN LORENZO CREEK AT SAN LORENZO, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.48	10	.01	13	2	.07	2.7	3	.02
2	.49	11	.01	11	2	.06	53	99	43
3	.48	13	.02	9.8	2	.05	30	15	1.9
4	.49	14	.02	9.2	1	.02	21	2	.11
5	.46	11	.01	8.7	1	.02	17	3	.13
6	.44	8	.01	8.6	1	.03	196	122	160
7	.43	6	.01	7.5	2	.03	56	54	16
8	.40	5	.00	7.0	2	.03	42	37	9.4
9	.45	4	.00	7.0	2	.03	576	551	1960
10	.43	4	.00	5.9	1	.02	144	211	142
11	.45	3	.00	5.2	1	.01	57	103	17
12	.52	2	.00	5.3	1	.02	27	35	2.6
13	.55	3	.00	4.4	2	.03	22	19	1.1
14	.65	4	.01	4.0	3	.03	21	10	.57
15	.38	6	.01	3.9	4	.04	20	5	.27
16	.43	6	.01	4.1	4	.04	19	4	.21
17	.45	6	.01	4.0	3	.03	34	40	4.7
18	.49	7	.01	3.4	3	.03	22	13	.82
19	.46	7	.01	4.1	22	.31	19	6	.29
20	4.6	60	26	3.3	23	.20	18	5	.25
21	38	240	112	2.9	19	.15	18	4	.18
22	11	12	.36	3.3	16	.14	18	3	.15
23	9.4	3	.08	3.0	14	.11	18	2	.10
24	9.0	3	.07	2.8	11	.08	18	2	.10
25	9.2	3	.07	2.7	7	.05	18	3	.13
26	10	4	.11	2.5	5	.03	18	4	.17
27	10	5	.15	2.7	3	.02	18	4	.19
28	10	5	.14	2.7	2	.02	214	350	518
29	161	240	375	2.5	2	.01	136	209	91
30	32	33	7.0	2.6	2	.02	68	123	25
31	14	4	.14	---	---	---	35	42	4.1
TOTAL	327	---	521.27	157.1	---	1.73	1975.7	---	2999.49
		JANUARY			FEBRUARY			MARCH	
1	541	936	2330	29	17	1.3	56	51	7.7
2	57	240	38	28	14	1.0	50	40	5.4
3	36	114	11	27	16	1.2	45	32	4.0
4	28	54	4.2	24	17	1.1	41	37	4.1
5	27	44	3.2	24	19	1.3	39	48	5.0
6	88	69	24	22	20	1.2	37	65	6.5
7	513	330	460	33	98	17	36	73	7.1
8	158	294	149	43	154	21	35	61	5.7
9	70	149	29	41	91	11	34	50	4.6
10	50	93	13	26	49	3.5	33	41	3.6
11	42	68	7.8	34	37	3.4	32	31	2.7
12	297	197	513	25	25	1.7	31	35	2.9
13	1970	3830	26800	24	22	1.4	31	33	2.8
14	333	1060	1230	22	21	1.3	33	31	2.8
15	126	266	89	22	21	1.2	30	22	1.8
16	85	181	42	21	20	1.1	44	131	41
17	141	307	134	26	29	2.3	94	392	156
18	104	327	97	128	344	841	54	225	36
19	61	137	23	463	1240	2360	33	131	12
20	511	1880	9360	281	648	571	31	108	9.0
21	295	718	737	128	422	158	30	89	7.2
22	237	574	530	77	142	29	29	83	6.6
23	94	207	54	175	746	535	57	137	29
24	66	106	19	83	300	73	51	121	19
25	54	66	9.6	65	109	19	41	75	14
26	46	42	5.3	259	1240	1430	61	166	38
27	48	31	4.1	86	163	39	70	184	51
28	42	28	3.2	67	81	15	47	95	13
29	37	25	2.5	---	---	---	38	39	4.0
30	33	22	1.9	---	---	---	36	25	2.5
31	30	21	1.8	---	---	---	49	79	25
TOTAL	6220	---	42725.6	2283	---	6142.0	1328	---	530.0

11181040 SAN LORENZO CREEK AT SAN LORENZO, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL	
1	45	136	18
2	35	51	4.9
3	34	42	3.9
4	39	44	5.2
5	34	20	1.9
6	35	14	1.4
7	36	13	1.2
8	36	16	1.5
9	36	22	2.1
10	33	31	2.8
11	32	29	2.5
12	31	18	1.5
13	31	21	1.7
14	31	27	2.2
15	31	26	2.1
16	29	24	1.9
17	48	111	18
18	36	129	18
19	25	54	3.7
20	24	32	2.1
21	23	19	1.2
22	22	16	.95
23	32	51	9.3
24	30	48	4.3
25	20	16	.90
26	18	8	.39
27	17	7	.32
28	16	7	.28
29	15	5	.19
30	14	4	.16
31	---	---	---
TOTAL	888	---	114.59
PERIOD	13178.93		53034.68

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1992	327.13	521.27	19	540
NOVEMBER	157.10	1.73	0	2
DECEMBER	1975.70	2999.49	165	3160
JANUARY 1993	6220.00	42725.60	464	43200
FEBRUARY	2283.00	6142.00	97	6240
MARCH	1328.00	530.00	5	535
APRIL	888.00	114.59	1	116
PERIOD	13178.93	53034.68	751	53793

11181330 TEMESCAL CREEK ABOVE LAKE TEMESCAL, AT OAKLAND, CA

LOCATION.--Lat 37°50'38", long 122°13'35, in San Antonio (V and D Peralta) Grant, Alameda County, Hydrologic Unit 18050002, on right bank at Oakland, 0.1 mi upstream of inflow to Lake Temescal.

DRAINAGE AREA.--1.74 mi^2.

PERIOD OF RECORD.--October 1979 to September 1981, June 1989 to September 1993 (discontinued).
CHEMICAL DATA: Water years 1979-80.
SEDIMENT DATA: Water years 1979-81.

GAGE.--Water-stage recorder. Elevation of gage is 395 ft above sea level, from topographic map.

REMARKS.--Records fair. No diversion or regulation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 156 ft^3/s, Jan. 20, 1993, gage height, 4.70 ft; no flow Sept. 30, 1990, and several days in 1991 and 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 29	1100	96	3.49	Jan. 13	0445	129	4.17
Dec. 28	0730	98	3.54	Jan. 20	1645	*156	*4.70
Jan. 1	0445	116	3.91	Feb. 19	0415	112	3.83
Jan. 7	0015	124	4.07				

Minimum daily, 0.02 ft^3/s, Sept. 25, 26, and 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.71	e.20	16	1.3	.88	1.5	.53	.23	.11	.09	.06
2	.26	.11	e1.0	1.8	1.2	.81	.69	.48	.27	.12	.07	.08
3	.24	.09	e.40	1.2	1.2	.76	.60	.84	.64	.13	.09	.05
4	.22	.10	e.30	.92	1.0	.62	.61	.31	.22	.13	.09	.04
5	.21	.09	e.20	.79	.81	.57	.55	.34	.21	.11	.07	.04
6	.21	.08	e4.0	8.1	.47	.57	.52	.28	.20	.11	.07	.04
7	.19	.09	e3.0	17	3.1	.57	.47	.29	.20	.11	.08	.05
8	.19	.08	e7.0	3.5	1.3	.53	.48	.32	.20	.11	.08	.06
9	.23	.08	e15	1.9	1.3	.48	.43	.37	e.19	.12	.08	.05
10	.22	.09	4.8	1.5	.74	.48	1.2	.32	e.19	.12	.08	.04
11	.19	.08	4.5	1.1	.60	.48	.43	.32	e.18	.12	.07	.05
12	.18	.07	.51	8.8	.44	.44	.34	.31	.18	.13	.07	.05
13	.16	.08	.24	47	.43	.44	.32	.29	.18	.14	.09	.05
14	.16	.09	.19	11	.39	.44	.29	.30	.16	.14	.09	.05
15	.16	.09	.13	6.6	.39	.45	.29	.32	.17	.13	.08	.06
16	.16	.10	.09	3.4	.38	3.0	.26	.30	.22	.14	.08	.05
17	.16	.09	2.4	7.1	1.3	5.0	2.4	.30	.22	.14	.14	.05
18	.16	.08	.14	3.9	4.7	1.4	1.9	.36	.20	.12	.06	.05
19	.16	.32	.10	2.5	13	.82	.70	.36	.16	.11	.06	.05
20	1.9	.10	.08	32	3.1	.74	.61	.33	.16	.11	.06	.05
21	.34	.10	.07	13	2.0	.72	.57	.21	.14	.12	.05	.05
22	.13	.17	.06	5.4	3.1	.69	.53	.19	.13	.10	.05	.04
23	.13	.17	.12	2.4	5.9	3.0	1.4	1.4	.14	.11	.05	.03
24	.11	.20	.17	1.5	2.0	1.5	1.3	.27	.14	.14	.07	.03
25	.11	.20	.16	1.1	1.9	1.3	.61	1.5	.14	.10	.05	.02
26	.15	.20	.16	.90	1.8	1.1	.55	.52	.12	.11	.04	.02
27	.13	.21	.15	.78	1.2	3.1	.53	.23	.10	.11	.06	.03
28	.15	.17	10	.83	.97	1.0	.48	.23	.10	.12	.05	.03
29	15	.17	4.0	.75	---	.72	.48	.67	.10	.10	.04	.02
30	.28	.20	1.2	1.0	---	.68	.53	.27	.10	.10	.05	.03
31	.12	---	.72	1.1	---	3.0	---	.24	---	.09	.05	---
TOTAL	22.24	4.41	61.09	204.87	56.02	36.29	21.57	13.00	5.59	3.65	2.16	1.32
MEAN	.72	.15	1.97	6.61	2.00	1.17	.72	.42	.19	.12	.070	.044
MAX	15	.71	15	47	13	5.0	2.4	1.5	.64	.14	.14	.08
MIN	.11	.07	.06	.75	.38	.44	.26	.19	.10	.09	.04	.02
AC-FT	44	8.7	121	406	111	72	43	26	11	7.2	4.3	2.6

e Estimated.

11181330 TEMESCAL CREEK ABOVE LAKE TEMESCAL, AT OAKLAND, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.54	.34	.91	2.15	2.22	1.48	.40	.33	.15	.10	.095	.094
MAX	1.26	.74	1.87	6.61	4.57	2.76	.76	.80	.25	.20	.20	.22
(WY)	1992	1990	1993	1993	1980	1991	1980	1990	1980	1980	1992	1992
MIN	.084	.14	.18	.11	.35	.37	.18	.11	.057	.025	.019	.014
(WY)	1991	1991	1990	1991	1981	1990	1990	1991	1989	1989	1991	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1980 - 1993	
ANNUAL TOTAL	325.70		432.21			
ANNUAL MEAN	.89		1.18		.73	
HIGHEST ANNUAL MEAN					1.18	1993
LOWEST ANNUAL MEAN					.39	1991
HIGHEST DAILY MEAN	22	Feb 14	47	Jan 13	47	Jan 13 1993
LOWEST DAILY MEAN	.05	Feb 4	.02	Sep 25	.00	Sep 30 1990
ANNUAL SEVEN-DAY MINIMUM	.08	Feb 2	.03	Sep 23	.00	Oct 10 1991
INSTANTANEOUS PEAK FLOW			156	Jan 20	156	Jan 20 1993
INSTANTANEOUS PEAK STAGE			4.70	Jan 20	4.70	Jan 20 1993
ANNUAL RUNOFF (AC-FT)	646		857		530	
10 PERCENT EXCEEDS	1.4		2.4		.98	
50 PERCENT EXCEEDS	.19		.22		.15	
90 PERCENT EXCEEDS	.11		.06		.02	

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA

LOCATION.--Lat 37°57'53", long 122°25'42", in NW 1/4 sec.3, T.1 N., R.5 W., Contra Costa County, Hydrologic Unit 18050002, on north end of Port of Richmond Pier on west side of Point San Pablo.

GAGE-HEIGHT RECORDS

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1989 to current year (gage height only).

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below sea level.

REMARKS.--Daily maximums and minimums sometimes differ from tidel-cycle (24.8 hours) maximums and minimums.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 15.27 ft, Jan. 7, 1993; minimum gage height recorded, 5.11 ft, Dec. 30, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 15.27 ft, Jan. 7; minimum gage height recorded, 5.66 ft, May 7.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.64	7.59	12.31	7.73	12.37	8.35	13.52	9.15	13.29	8.08	12.91	8.38
2	13.34	7.76	12.22	7.81	13.10	8.74	13.25	8.23	13.67	6.92	12.82	8.09
3	12.88	7.86	12.44	7.93	13.18	9.24	13.34	7.54	14.27	7.07	13.15	7.39
4	12.80	7.92	12.66	8.18	13.41	8.73	13.67	7.17	14.68	7.06	13.18	6.79
5	12.70	8.02	13.05	8.64	13.67	8.06	14.20	6.98	15.02	6.75	13.36	5.97
6	12.71	8.08	13.21	8.10	14.32	8.55	14.70	7.09	14.84	6.76	13.67	6.04
7	12.76	8.26	13.29	7.65	14.54	7.43	15.27	7.13	14.98	7.47	13.82	6.98
8	13.01	8.46	13.56	7.23	14.45	7.02	15.16	6.67	14.95	7.96	13.68	7.34
9	13.27	8.55	13.75	6.85	14.48	6.54	14.86	6.68	14.46	7.98	13.94	7.55
10	13.44	8.12	13.65	6.50	14.85	6.54	14.59	6.87	14.07	8.30	14.07	7.25
11	13.51	7.81	13.80	6.41	14.68	6.34	13.77	6.92	14.31	8.13	14.05	7.10
12	13.64	7.63	13.86	6.47	13.84	6.03	13.49	8.17	14.07	7.86	13.98	7.02
13	13.85	7.60	13.85	6.78	13.38	6.36	14.91	9.35	13.80	7.80	13.83	7.30
14	13.87	7.40	13.68	6.94	13.04	7.00	14.75	9.05	13.73	7.76	13.67	7.51
15	13.70	7.29	13.39	7.27	12.97	7.46	14.43	8.46	13.77	7.78	13.27	7.53
16	13.52	7.34	12.95	7.53	13.18	8.14	14.56	8.20	13.85	6.80	13.03	7.80
17	13.31	7.49	12.90	7.79	13.68	8.39	14.78	7.24	14.09	7.51	13.52	8.07
18	13.08	7.48	13.09	7.79	13.55	7.45	14.82	7.04	14.60	7.94	13.20	7.84
19	12.93	7.53	13.32	7.99	13.76	6.90	14.41	6.49	15.07	8.78	13.05	7.86
20	13.10	7.55	13.42	7.28	14.03	6.51	14.87	7.16	14.29	7.89	12.84	7.92
21	13.18	7.95	13.90	6.83	13.99	6.17	14.36	6.56	13.66	7.38	13.00	8.40
22	13.30	7.80	14.36	6.64	13.84	5.89	13.95	6.30	13.48	8.44	13.23	8.53
23	13.67	7.51	14.39	6.47	13.72	5.83	13.75	7.15	13.81	9.12	13.43	8.48
24	14.18	7.20	14.41	6.37	13.71	6.12	13.37	7.54	13.33	9.13	13.49	8.30
25	14.38	6.78	14.20	6.32	13.69	6.45	13.03	8.03	13.23	9.02	13.58	8.32
26	14.40	6.70	13.70	6.26	13.44	6.79	12.97	8.52	13.18	8.92	13.76	8.28
27	14.46	6.82	13.39	6.57	13.33	7.55	13.17	9.13	13.24	8.84	13.51	8.20
28	14.33	7.08	13.12	7.04	13.57	8.60	13.16	9.43	13.09	8.80	13.44	8.20
29	14.30	7.53	12.49	7.30	13.56	8.63	12.97	9.45	---	---	13.06	8.20
30	13.68	7.54	12.21	7.74	13.01	8.63	12.90	9.25	---	---	12.86	8.23
31	12.97	7.58	---	---	13.07	9.46	13.30	8.83	---	---	12.80	8.19
MONTH	14.46	6.70	14.41	6.26	14.85	5.83	15.27	6.30	15.07	6.75	14.07	5.97

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.81	7.84	13.33	7.87	14.29	7.14	14.38	6.59	14.02	6.82	13.47	8.13
2	12.77	7.50	13.81	8.21	14.41	6.69	14.37	6.41	13.94	7.13	13.24	8.41
3	13.16	7.49	14.07	7.62	14.43	6.34	14.35	6.44	13.94	7.41	13.22	8.58
4	13.51	7.51	14.21	6.84	14.53	6.29	14.28	6.61	13.62	7.71	13.20	8.64
5	13.86	7.58	14.33	6.32	14.52	6.34	14.24	6.94	13.19	7.93	13.41	8.69
6	14.10	6.96	14.20	6.00	14.29	6.43	13.91	7.10	13.03	8.27	13.29	8.49
7	14.10	6.40	14.10	5.66	13.69	6.53	13.51	7.47	13.12	8.75	13.14	8.42
8	14.24	6.29	13.96	5.74	13.24	6.49	13.15	8.08	13.15	9.02	13.22	8.48
9	14.11	6.26	13.72	6.13	12.68	7.28	13.28	8.52	13.14	8.79	13.35	8.40
10	13.80	6.31	13.49	6.77	12.64	7.89	13.29	8.95	13.03	8.47	13.33	8.11
11	13.24	6.42	13.12	7.34	12.62	8.37	13.43	9.32	13.27	8.39	13.47	7.79
12	12.75	7.07	12.82	7.62	12.86	8.97	13.62	9.27	13.50	7.94	13.86	7.53
13	12.34	7.58	12.79	8.06	13.17	9.07	13.75	8.88	13.80	7.69	13.86	7.49
14	12.13	7.85	12.81	8.55	13.06	8.60	13.82	8.24	14.11	7.29	13.75	7.44
15	12.41	7.99	12.95	8.91	13.47	8.05	13.83	7.67	14.12	6.98	13.69	7.42
16	12.60	8.12	13.13	8.68	13.89	7.70	13.99	7.17	14.11	6.73	13.79	7.65
17	12.89	8.44	13.46	8.13	14.17	6.78	14.12	6.64	14.00	6.76	13.92	7.22
18	12.77	8.31	13.64	7.76	14.30	6.68	14.25	6.58	14.00	6.89	14.08	7.22
19	13.14	7.82	13.77	7.52	14.36	6.00	14.15	6.58	13.72	7.25	14.17	7.31
20	13.27	7.62	13.92	7.22	14.29	6.69	14.15	6.54	13.60	7.52	14.08	7.45
21	13.33	7.28	13.93	6.62	14.29	6.48	13.96	6.67	13.80	7.92	13.84	7.63
22	13.37	6.94	14.12	6.67	13.80	6.22	13.49	6.88	14.03	7.86	13.61	7.72
23	13.45	6.77	14.13	6.69	13.38	6.37	13.49	7.36	14.02	7.81	13.21	7.70
24	13.63	6.82	13.98	6.79	13.07	6.98	13.87	8.09	14.01	7.85	13.01	7.65
25	13.37	6.66	13.84	6.31	13.48	7.62	14.00	8.22	13.93	7.75	13.02	7.69
26	13.11	6.62	13.86	6.78	13.77	8.31	14.08	8.23	13.80	7.18	12.88	7.76
27	12.83	6.94	13.37	7.30	13.98	8.58	14.19	7.94	13.83	7.09	12.81	7.80
28	12.63	7.15	13.30	7.96	14.07	8.13	14.20	7.50	13.85	7.40	12.89	8.07
29	12.30	7.34	13.48	8.23	14.18	7.36	14.06	7.13	13.87	7.63	13.22	8.46
30	12.83	7.55	13.94	8.57	14.23	6.92	14.06	6.84	13.79	7.74	13.10	8.07
31	---	---	14.16	8.07	---	---	14.06	6.71	13.48	7.91	---	---
MONTH	14.24	6.26	14.33	5.66	14.53	6.00	14.38	6.41	14.12	6.73	14.17	7.22

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1989 to current year.
WATER TEMPERATURE: October 1989 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1989.

REMARKS.--Interruptions in record were due to malfunction of the sensing and/or recording instruments. Upper probe is set at 3.6 ft below Mean Lower Low Water (MLLW). Lower probe is set at 24.8 ft below MLLW. Deily maximums and minimums sometimes differ from tidal-cycle (24.8 hours) maximums and minimums.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 50,900 microsiemens, Aug. 25, 28, 1992; minimum recorded, 5,130 microsiemens, Mar. 30, 1993.
(Lower probe) Maximum recorded, 50,100 microsiemens, July 23, 1990; minimum recorded 3,040 microsiemens, March 30, 1993.
WATER TEMPERATURE: (Upper probe) Maximum recorded, 24.0°C, July 31, 1993; minimum recorded, 4.5°C, Dec. 23, 1990.
(Lower probe) Maximum recorded, 22.0°C, July 18-19, 1992, July 31, 1993 and Aug. 1, 16, 1993; minimum recorded 5.0°C, Dec. 21, 23, 1990.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 49,900 microsiemens, Oct. 28; minimum recorded, 5,130 microsiemens, March 30.
(Lower probe) Maximum recorded, 46,900 microsiemens, July 28; minimum recorded, 3,040 microsiemens, Merch 30.
WATER TEMPERATURE: (Upper probe) Maximum recorded, 24.0°C, July 31; minimum recorded, 6.5°C, Jen. 12.
(Lower probe) Maximum recorded, 22.0°C, July 31, Aug. 1, 16; minimum recorded, 6.5°C, Jan. 12.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	47300	41800	48800	42100	48100	40300	45800	35400	40800	19600	38300	8870
2	46700	42700	48700	40800	48100	40400	47100	34800	45400	19300	38300	11800
3	46900	41400	48700	41100	47900	41100	46900	33300	42200	24300	40400	13800
4	46300	39700	49000	39800	47700	41400	46300	33400	42200	18800	38300	17700
5	46300	39400	49000	40800	48100	41000	46900	32700	43300	25300	37100	19000
6	45800	39300	48800	42000	48400	41300	47300	33300	43400	25100	39600	19400
7	46300	39700	48900	42000	48400	40700	47400	33400	43400	26500	40700	20300
8	46800	40600	49000	42300	48500	41200	46800	33300	43100	28400	39900	22800
9	47100	41900	49400	42500	48600	40700	46500	31900	42300	27500	40300	23200
10	47200	41600	49400	42900	48500	39700	46200	31200	41200	25700	40200	22300
11	47500	40900	49300	41800	48000	40500	44400	27100	41800	23900	40800	23300
12	47700	41200	49500	42200	47700	39000	44400	24600	41700	21700	40800	22500
13	48000	41300	49400	41900	47600	35000	44900	24700	42200	17400	40500	20100
14	48000	41700	49200	41800	46200	33500	43400	25300	42700	18200	38900	19500
15	48200	41900	49000	41800	46200	35000	43400	21500	41400	17600	39400	19800
16	48300	42200	48600	41800	46100	32800	43400	20300	40200	20800	38100	19400
17	48300	41800	47800	41500	46300	31100	43400	19200	39400	21000	39500	17300
18	48000	41700	47900	43300	46300	35400	38900	18100	42100	22100	39500	21200
19	47900	42300	47900	42100	46500	34700	38000	16900	40600	22800	39500	20200
20	48400	42000	48100	42800	46400	33200	38200	12500	37800	18600	40000	20100
21	48500	42500	48500	41400	47000	34300	39000	9210	38200	10500	39400	18700
22	48500	44500	49100	41300	46400	34800	35900	11100	38500	11600	40300	16600
23	48600	42700	49100	43100	46700	34500	34200	10100	38100	12000	38500	19400
24	49000	43000	49100	43500	46900	34000	34700	9340	36300	8500	41400	17300
25	49300	44400	49000	42400	46700	34500	35300	7950	31000	11400	38400	15300
26	49500	44100	49000	41200	46700	34700	35400	10400	34600	8780	35000	15200
27	49700	43500	48900	41700	46900	35900	36300	11000	34400	10800	36300	9810
28	49900	44300	48900	42500	46300	37400	37400	14600	35800	9200	35000	11900
29	49400	43200	48400	40500	46700	37700	37800	14800	---	---	39700	9010
30	49700	43900	47800	39700	45700	35700	38400	17600	---	---	37600	5130
31	49100	42600	---	---	46100	36200	38600	17100	---	---	37100	5630
MONTH	49900	39300	49500	39700	48600	31100	47400	7950	45400	8500	41400	5130

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	39300	8360	43100	26700	43200	27300	44500	29500	47400	34800	45700	35000
2	34500	11200	43400	26000	43500	28200	44100	29200	47600	34900	45800	33900
3	36700	10800	44500	28500	43100	27300	44500	29900	47200	34600	45500	31600
4	38400	12100	43800	29800	43300	24700	45200	30300	46800	35500	45500	32700
5	37500	13200	44600	28100	42900	23900	45100	31100	46700	34000	45500	34400
6	37700	13000	44600	27500	43100	23000	44900	31600	46500	33100	45300	33300
7	38700	13800	44500	28400	40900	19200	45300	32400	46500	33200	44000	33200
8	39200	14900	44500	27600	39300	15400	45600	31100	46200	31100	44300	32700
9	39500	13500	43000	24300	40600	11900	45700	30800	46500	31400	44000	30600
10	39300	13000	41800	23300	38200	16200	46200	32300	45000	29300	44900	34100
11	40400	12300	42500	23900	39300	16100	45600	34000	44500	33400	44700	35200
12	38100	14600	41300	21700	40900	15400	46200	33200	45800	31900	45400	34800
13	38900	11700	42100	21100	39600	19100	46100	32500	46400	33700	45400	34300
14	40700	14400	41000	24600	39700	21000	43600	32800	---	---	44900	34700
15	41500	18200	41000	22400	41200	23100	45600	33100	---	---	45800	34900
16	39600	19900	41800	24500	41700	22200	46800	32800	---	---	45900	36000
17	41500	21600	41800	24300	43700	24300	47300	33200	---	---	46000	35700
18	41500	23100	43100	27800	43000	26700	47300	33000	47000	33200	46200	34500
19	42000	25100	43200	28900	43500	27300	48000	33100	46300	32900	---	---
20	41600	21900	43200	29400	43900	27700	47800	34200	46200	35300	---	---
21	41600	25800	43400	29300	42600	27000	47300	33600	46200	32800	46500	36100
22	41800	25900	42700	30800	43000	27400	47000	34400	46400	33300	46200	36700
23	42600	24500	43900	29500	41500	24500	46900	33300	46500	34600	45500	37200
24	41500	24200	41700	29200	42500	24200	47600	36100	46100	34100	45400	35700
25	40500	21600	43400	28000	42900	22200	48100	33300	45900	34500	45400	34400
26	40400	21600	42300	25600	41800	27400	48400	36200	45300	33700	44700	34700
27	40700	21000	42300	24200	43800	27100	48700	37000	45600	34100	44600	35900
28	41500	18700	43000	22700	44000	28800	48800	36900	46500	34000	45600	35400
29	40900	21300	43000	22900	44100	29100	48400	37200	46200	34700	45500	37400
30	42300	23500	43500	23900	44400	29000	47800	35700	46200	36400	45500	37200
31	---	---	43200	25400	---	---	47400	34800	46200	35900	---	---
MONTH	42600	8360	44600	21100	44400	11900	48800	29200	---	---	---	---

11181360 POINT SAN PABLO STRAIT AT POINT SAN PABLO, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	43200	39600	45000	39900	45000	40100	42800	35000	44800	18100	41200	10700
2	43100	40200	44800	38400	45100	40100	43600	34200	45000	19200	42300	11500
3	43300	39400	44700	40000	44900	39500	43300	32200	43500	22200	42100	11300
4	43100	38600	45000	38400	45000	39600	42700	31700	41600	20300	40100	16300
5	43100	38600	45100	39500	44900	39000	42800	30600	42500	23400	40400	17800
6	43000	38500	45100	40100	45200	39400	42600	31200	42300	23200	39900	18300
7	43000	38400	45200	40400	45000	38500	42600	30900	42300	24200	40600	19200
8	43400	40100	45400	41000	45200	39200	41700	30700	42200	26100	40100	21500
9	43700	41000	45600	40200	45300	38300	41300	29600	41100	24900	40700	22500
10	43800	41300	45700	40000	45700	39400	40900	28900	40200	24500	40700	22200
11	44100	40700	45500	39600	45100	38500	39100	26000	40400	20800	41500	23500
12	44300	40500	45600	39800	45000	37100	38800	23700	40300	19800	41500	21700
13	44600	40600	45600	39600	44700	34300	39000	24000	40800	15400	41600	19400
14	44700	40600	45600	39800	43800	33600	38400	23600	41900	15200	42000	18400
15	44800	40600	45500	39700	43500	34700	42700	19900	41200	17100	41100	18500
16	45000	40900	45200	40100	43400	33800	42800	18400	41200	18400	42300	19000
17	45200	40500	44800	40500	43700	33700	43600	14500	40500	17700	41400	16100
18	45200	40600	44700	41200	43600	35300	43100	16900	40700	19300	40500	20800
19	45300	41100	44800	41000	43700	34900	40800	14500	39800	19800	40700	18900
20	45600	41400	45100	40000	43800	32800	37400	9900	38700	15300	40400	19200
21	45500	42100	45200	39900	44300	33800	40300	6900	37000	6210	40100	21200
22	45600	43100	45600	39700	44100	34300	39700	8420	36500	7980	40500	16000
23	45500	42600	45500	40700	44100	34000	38000	7370	36300	9020	41300	20200
24	45700	41900	45500	39500	44100	33200	38300	6630	36000	4320	41400	16600
25	45700	42500	45400	40100	44000	33400	38200	4770	36400	8260	41200	13500
26	45900	42300	45500	39500	43700	33400	37900	10000	37800	5030	41900	14000
27	46000	42400	45500	40200	44000	33900	38300	12200	39700	9170	40200	7630
28	45900	42000	45600	40400	43400	35600	39400	14400	40300	7470	39800	9520
29	45400	40700	45400	38700	43700	36100	40700	14000	---	---	41200	7410
30	45400	41500	44900	38100	42800	34700	43100	17500	---	---	40700	3040
31	45100	39900	---	---	43100	36900	43900	17900	---	---	41500	6740
MONTH	46000	38400	45700	38100	45700	32800	43900	4770	45000	4320	42300	3040

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	41900	7100	42500	26000	43600	26500	44300	28300	46300	32500	44900	33500
2	39700	11500	42300	27000	43800	27400	44200	28000	46300	32400	44800	32100
3	40400	11600	43100	28400	43600	26100	44200	28700	45800	32200	44500	29900
4	39300	12000	42600	29300	43500	23100	44500	29000	45700	32800	44200	33000
5	38400	14800	43000	25600	43200	22000	44600	29800	45300	32600	44300	33400
6	38700	11800	43300	25200	43200	21600	44000	30500	45100	32100	44300	31200
7	40100	13500	43800	27600	42600	18700	43600	29700	45200	33900	43400	32800
8	40700	14100	44200	26800	42000	12600	43600	31200	45300	31500	43800	34800
9	41300	13100	44500	24300	40500	9360	43900	30100	45100	31500	44100	30000
10	40900	12700	45300	23100	41800	14100	44400	32000	45200	29600	43800	32900
11	42100	13100	44400	25400	42300	16300	44300	31700	45300	32900	44000	33200
12	43400	14500	42900	21700	43100	19400	44500	31200	45300	29300	44800	32900
13	44500	13200	43600	21100	42600	18800	44800	30500	45000	31500	44600	32600
14	44700	16400	45700	26200	44200	20500	45400	30000	---	---	44300	33000
15	45200	18400	45700	21400	43000	23300	44200	30300	---	---	44600	34700
16	44800	22700	44800	27100	43300	22300	45400	30000	---	---	44700	34000
17	44500	21500	43700	26800	43600	22200	45600	30200	---	---	44700	33900
18	42500	24600	44000	27300	42900	25000	45600	30200	45600	30700	45000	32800
19	42600	25200	43900	28800	43000	25400	46100	30100	45000	30700	---	---
20	42300	23100	44100	29200	43100	25900	45900	31700	44800	33600	---	---
21	42200	24900	44500	29300	42800	25100	45600	30700	45000	30400	44800	33700
22	42300	25700	44300	30400	42200	26000	45500	31700	45300	31300	44500	33700
23	43000	23300	44800	29100	42400	24300	45100	31700	45300	32600	44000	34400
24	43300	23500	44800	28800	42200	22500	45800	33300	45200	31600	44200	33000
25	43300	20200	44800	27400	42600	22600	46300	33800	45300	32400	44300	31900
26	43200	20300	44100	25300	42900	26000	46600	33200	45400	31700	43700	32200
27	43600	20600	42800	23000	43300	27600	46800	34600	44800	32000	44000	33800
28	42500	20500	43500	21700	43400	27600	46900	34200	45400	32100	44400	33600
29	43100	20000	43300	25100	43800	27400	46700	34500	45200	32600	44600	36300
30	42700	22000	43900	24100	44200	27700	46300	33000	45200	34400	44900	35500
31	---	---	43500	24500	---	---	46200	32200	45400	34700	---	---
MONTH	45200	7100	45700	21100	44200	9360	46900	28000	---	---	---	---

11181360 POINT SAN PABLO STRAIT AT POINT SAN PABLO, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	17.5	18.0	16.5	13.5	12.5	10.0	9.0	11.0	10.0	12.0	10.5
2	19.5	18.0	18.0	16.5	13.5	12.5	10.5	8.5	11.5	10.0	12.5	11.0
3	19.5	17.5	18.0	17.0	13.0	12.5	10.5	8.0	11.5	10.0	13.5	11.5
4	20.5	18.0	18.0	16.5	13.0	12.0	10.0	8.0	11.5	10.5	14.0	11.5
5	19.5	18.0	18.0	16.5	13.0	12.0	10.0	7.5	12.0	10.5	14.5	12.0
6	20.5	18.0	18.0	16.5	13.0	12.0	10.0	7.5	12.0	10.5	15.0	12.5
7	20.5	18.0	18.0	16.5	12.5	12.0	10.0	7.5	12.0	11.0	15.0	12.5
8	20.5	17.5	17.0	16.5	12.5	11.5	10.0	8.0	12.0	11.5	15.0	13.0
9	20.5	17.5	17.0	15.5	13.0	12.5	10.0	8.0	12.0	11.0	14.5	13.0
10	20.5	17.5	16.5	15.0	13.0	12.0	10.0	8.0	12.0	11.0	15.0	13.5
11	20.5	17.5	16.5	14.5	12.5	12.0	9.5	7.5	12.0	11.0	15.5	13.5
12	20.0	17.5	16.0	14.5	12.5	10.5	9.5	6.5	12.0	10.5	15.5	14.0
13	19.5	17.5	16.0	14.0	12.5	10.0	9.5	7.5	12.0	11.0	15.5	14.0
14	19.0	17.5	15.5	14.5	12.0	10.5	9.5	7.5	12.0	11.0	15.5	14.0
15	18.5	17.5	15.5	14.5	12.0	10.5	9.5	7.5	12.5	11.5	15.5	14.0
16	18.5	17.0	15.5	15.0	12.0	10.5	9.5	7.5	12.0	11.5	16.0	14.5
17	18.5	17.0	15.5	15.0	12.0	10.0	9.5	8.0	12.0	11.5	15.5	14.0
18	18.5	17.5	15.5	15.0	12.0	9.5	9.5	8.0	12.0	11.5	16.5	14.5
19	18.5	17.0	15.0	15.0	11.5	9.5	9.5	8.0	12.0	11.5	16.0	14.5
20	18.5	17.5	15.0	13.5	11.5	10.0	10.0	8.5	12.0	11.0	17.0	14.5
21	19.0	17.0	14.5	13.5	11.5	10.0	10.0	8.5	12.0	10.5	17.0	14.5
22	19.5	17.5	14.5	14.0	11.5	10.0	10.5	9.0	12.0	11.0	17.5	14.5
23	19.0	17.0	14.5	13.0	11.5	9.5	10.0	8.5	12.0	10.5	16.0	15.0
24	18.5	17.0	14.0	12.0	11.5	9.0	10.0	9.0	12.0	10.0	16.5	14.5
25	18.5	17.0	14.0	12.5	11.0	8.0	10.5	9.0	11.5	10.0	15.5	14.5
26	18.5	17.0	14.0	12.5	11.0	8.0	10.5	9.0	11.5	10.0	15.5	14.5
27	18.5	17.0	14.0	13.5	10.5	8.0	10.5	9.0	11.5	10.5	14.5	14.0
28	17.5	16.5	14.0	13.0	10.5	8.5	10.5	9.0	12.0	10.0	15.0	13.5
29	17.0	16.5	13.5	12.5	10.5	8.5	10.5	9.0	---	---	15.0	13.5
30	17.0	16.5	13.5	12.0	10.0	8.5	11.0	9.0	---	---	15.0	13.5
31	17.5	16.5	---	---	10.0	8.5	11.0	9.5	---	---	14.5	13.5
MONTH	20.5	16.5	18.0	12.0	13.5	8.0	11.0	6.5	12.5	10.0	17.5	10.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.5	13.0	18.5	13.5	19.5	16.5	20.5	15.0	22.0	17.5	22.0	17.5
2	15.0	13.5	18.0	13.5	19.5	16.5	20.0	15.5	22.0	17.5	21.5	18.0
3	15.5	13.5	17.5	13.5	19.0	16.5	19.5	15.5	21.5	18.0	20.5	18.0
4	16.5	13.5	17.5	13.5	18.0	16.5	19.0	15.0	21.5	18.0	20.5	18.0
5	15.5	13.5	17.5	13.5	18.0	16.5	19.0	15.0	21.5	18.0	20.0	18.0
6	15.5	13.5	17.5	13.5	18.5	16.5	19.5	15.5	21.5	18.5	19.5	18.0
7	16.0	13.5	17.5	13.5	19.5	16.5	19.0	16.0	21.0	18.5	20.5	18.5
8	15.5	13.5	17.5	13.5	19.5	16.5	19.0	16.0	21.0	18.5	20.5	18.5
9	16.0	13.5	18.0	14.0	20.0	16.5	19.0	16.0	20.5	18.0	20.5	18.0
10	15.5	13.5	18.5	14.5	19.5	17.0	19.0	16.0	20.5	18.5	20.0	18.0
11	15.0	13.5	17.0	14.0	19.5	16.5	19.0	16.0	20.5	18.5	20.0	18.0
12	15.5	13.5	17.0	14.0	19.5	15.5	19.0	16.0	21.0	18.5	19.5	17.5
13	15.5	13.5	17.0	14.0	19.5	15.5	18.5	16.5	20.0	18.0	19.5	17.0
14	16.0	13.0	18.0	14.5	21.0	15.5	18.5	17.0	20.0	17.5	19.0	17.0
15	16.0	13.0	18.5	14.5	20.0	15.0	20.0	17.0	20.5	17.5	19.0	17.0
16	16.5	13.0	18.0	14.5	20.5	15.0	19.5	17.0	22.0	17.5	19.0	17.0
17	15.0	12.5	17.5	14.5	21.0	14.5	21.0	17.0	21.5	17.5	18.5	16.5
18	17.0	12.5	18.5	14.5	20.0	15.0	20.0	17.0	21.0	17.5	19.0	16.5
19	16.5	13.0	18.0	14.5	19.5	15.0	20.0	16.5	21.5	18.0	19.0	16.5
20	16.0	13.0	18.5	14.5	19.5	15.0	20.0	16.5	21.0	18.0	18.5	16.5
21	16.5	13.5	18.5	15.0	19.0	15.5	20.0	17.0	21.5	18.0	18.5	16.5
22	16.5	13.5	19.0	15.5	19.5	15.0	21.0	17.0	21.5	17.5	18.5	16.5
23	15.0	13.5	18.5	15.5	21.0	15.5	21.0	17.0	21.0	18.0	19.5	17.0
24	17.0	13.5	18.0	16.0	21.5	15.5	20.0	17.0	21.0	18.0	20.0	17.0
25	16.0	14.0	18.0	15.5	21.5	15.0	20.5	17.0	21.5	18.0	20.0	17.0
26	16.0	14.0	18.0	16.0	20.0	16.0	21.0	17.0	21.5	18.5	19.5	17.0
27	16.5	13.5	18.0	16.0	19.0	15.0	20.5	16.5	22.0	18.0	20.0	17.0
28	17.0	13.5	18.5	15.5	19.0	15.0	20.5	16.5	21.5	17.5	20.0	17.0
29	17.5	14.0	20.0	16.0	20.5	15.0	20.5	16.5	21.0	17.5	19.5	17.0
30	18.5	14.0	19.0	16.0	20.0	15.0	23.0	17.0	20.5	17.5	19.5	17.0
31	---	---	19.5	16.0	---	---	24.0	17.5	20.5	17.5	---	---
MONTH	18.5	12.5	20.0	13.5	21.5	14.5	24.0	15.0	22.0	17.5	22.0	16.5

11181360 POINT SAN PABLO STRAIT AT POINT SAN PABLO, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	17.5	17.5	16.5	13.0	12.5	10.0	9.0	11.5	10.0	12.0	10.5
2	19.5	17.5	18.0	17.0	13.0	12.5	10.5	8.5	11.5	10.0	12.5	11.0
3	19.5	17.5	18.0	17.0	13.0	12.5	10.5	8.0	11.5	10.5	13.5	12.0
4	19.5	18.0	18.0	16.5	13.0	12.0	10.0	8.0	11.5	10.5	13.5	12.0
5	19.5	18.0	18.0	16.5	13.0	12.0	10.0	7.5	12.0	11.0	14.0	12.0
6	20.0	18.0	18.0	16.5	12.5	12.0	10.0	8.0	12.0	11.0	14.5	12.5
7	20.0	18.0	18.0	16.5	12.5	11.5	10.0	7.5	12.0	11.0	14.5	12.5
8	20.0	18.0	17.0	16.5	12.5	11.5	10.0	8.0	12.0	11.5	14.5	13.0
9	20.0	17.5	17.0	16.0	13.0	12.0	10.0	8.0	12.0	11.0	14.0	13.0
10	20.5	17.5	16.5	15.0	13.0	12.0	10.0	8.0	12.0	11.0	14.5	13.5
11	20.5	17.5	16.0	14.5	12.5	12.0	9.5	7.5	12.0	11.0	15.0	13.5
12	19.5	17.5	16.0	14.5	12.5	10.5	9.5	6.5	12.0	11.0	15.0	13.5
13	19.5	17.5	15.5	14.0	12.5	10.0	9.5	7.5	12.0	11.0	15.5	14.0
14	19.0	17.5	15.5	14.5	12.0	11.0	9.5	8.0	12.0	11.0	15.0	14.0
15	18.5	17.0	15.5	14.5	12.0	11.0	9.5	7.5	12.0	11.5	15.5	14.0
16	18.5	17.0	15.5	15.0	12.0	10.5	9.5	8.0	12.0	11.5	15.5	14.0
17	18.5	17.0	15.5	15.0	12.0	10.5	10.0	8.0	12.0	11.5	15.5	14.0
18	18.5	17.0	15.5	15.0	12.0	10.0	10.0	8.5	12.0	11.5	16.5	14.0
19	18.5	17.0	15.0	14.5	11.5	10.0	10.0	8.0	12.0	11.5	16.0	14.5
20	18.5	17.0	15.0	13.5	11.5	10.0	10.0	8.5	12.0	11.0	17.0	14.5
21	18.5	17.0	14.5	13.0	11.5	10.0	10.0	9.0	12.0	10.5	16.5	14.5
22	19.0	17.0	14.5	14.0	11.5	10.0	10.5	9.0	12.0	11.0	17.0	14.5
23	19.0	17.0	14.0	13.0	11.5	9.5	10.5	9.0	12.0	10.5	16.0	14.5
24	18.5	17.0	14.0	11.5	11.0	9.0	10.5	9.0	12.0	10.0	16.0	14.5
25	18.0	17.0	13.5	12.0	11.0	8.5	10.5	9.0	12.0	10.5	15.5	14.5
26	18.5	17.0	13.5	12.5	10.5	8.0	11.0	9.5	12.0	10.0	15.0	14.0
27	18.5	17.0	13.5	13.0	10.5	7.5	11.0	9.5	12.0	10.5	14.5	14.0
28	17.5	17.0	13.5	13.0	10.5	8.5	11.0	9.5	12.0	10.0	14.5	13.0
29	17.5	16.5	13.5	12.5	10.5	8.5	11.0	9.5	---	---	14.5	13.5
30	17.5	16.5	13.5	12.0	10.0	8.5	11.0	9.5	---	---	14.5	13.0
31	17.5	16.5	---	---	10.0	9.0	11.5	9.5	---	---	15.0	13.0
MONTH	20.5	16.5	18.0	11.5	13.0	7.5	11.5	6.5	12.0	10.0	17.0	10.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.5	13.0	18.5	13.5	19.5	16.5	20.0	15.0	22.0	17.5	20.5	17.5
2	15.0	13.0	17.5	13.5	19.0	16.5	20.0	15.0	21.5	17.5	21.0	17.5
3	15.5	13.0	17.0	13.0	18.5	16.5	19.5	15.5	21.0	18.0	20.5	18.0
4	16.0	13.0	17.0	13.5	18.5	16.5	19.5	15.0	21.0	18.0	20.5	18.0
5	15.5	13.5	17.0	13.5	18.0	16.5	19.5	15.0	21.5	18.0	20.0	18.0
6	15.0	13.5	17.0	13.5	18.0	16.5	19.5	15.5	21.0	18.0	19.5	18.0
7	15.5	13.5	17.0	13.5	18.5	16.5	19.0	16.0	20.5	18.0	20.5	18.0
8	15.0	13.5	16.5	13.5	19.0	16.5	19.0	16.0	20.5	18.0	20.5	18.0
9	15.0	13.5	17.0	13.5	19.0	16.5	18.5	16.0	20.5	18.0	20.5	18.0
10	15.0	13.5	17.5	13.0	18.5	16.0	18.5	16.0	20.0	18.0	20.0	18.0
11	15.0	13.5	16.5	13.5	19.0	15.5	18.5	16.0	20.5	17.5	20.0	18.0
12	14.5	13.0	17.0	13.5	19.5	14.5	18.5	16.0	20.5	18.0	19.5	17.5
13	15.0	12.5	17.0	13.5	19.5	14.5	18.5	16.0	20.0	18.0	19.5	17.5
14	15.5	12.5	17.5	13.0	20.0	13.5	18.5	16.0	20.0	17.5	19.0	17.0
15	16.0	12.0	17.0	13.5	19.5	14.0	19.0	17.0	19.5	17.5	19.0	17.0
16	15.0	12.0	17.5	14.0	20.5	14.0	19.5	16.5	22.0	17.5	19.0	17.0
17	14.5	12.0	17.0	14.5	21.0	14.0	20.0	17.0	21.0	17.5	19.0	16.5
18	16.5	12.5	17.5	14.5	19.5	14.0	20.0	17.0	20.5	17.5	19.0	16.5
19	16.0	12.5	17.5	14.5	19.5	14.5	20.0	16.5	20.5	17.5	19.0	16.5
20	16.0	13.0	18.0	14.5	19.5	14.5	20.0	16.5	21.0	17.5	19.0	16.5
21	16.0	13.5	18.0	15.0	19.0	15.0	20.0	16.5	21.0	17.5	18.5	16.5
22	15.5	13.5	18.0	15.0	19.0	15.0	21.0	17.0	21.0	17.5	18.5	17.0
23	15.0	13.5	18.5	15.5	19.5	15.0	20.5	17.5	20.5	17.5	18.5	17.0
24	15.0	13.5	18.0	15.0	20.5	15.0	20.0	17.0	20.5	17.5	18.5	17.0
25	16.0	13.5	18.0	15.0	21.0	15.5	20.0	17.0	21.0	17.5	19.0	17.0
26	15.5	13.5	18.0	15.5	20.0	15.5	20.0	17.0	21.0	17.5	19.5	17.0
27	16.5	13.0	18.0	15.5	19.0	15.0	20.5	17.0	21.5	18.0	19.0	17.0
28	16.5	13.0	18.5	15.5	19.0	15.0	20.5	16.5	21.5	17.5	19.5	16.5
29	17.0	13.0	19.5	16.0	19.5	15.0	19.5	16.5	20.5	17.5	19.5	16.5
30	18.0	13.0	19.0	16.0	20.0	15.0	21.0	17.0	20.0	17.0	19.5	16.5
31	---	---	18.5	16.0	---	---	22.0	17.5	20.0	17.0	---	---
MONTH	18.0	12.0	19.5	13.0	21.0	13.5	22.0	15.0	22.0	17.0	21.0	16.5

11181390 WILDCAT CREEK AT VALE ROAD, AT RICHMOND, CA

LOCATION.--Lat 37°57'12", long 122°20'14", in San Pablo Grant, Contra Costa County, Hydrologic Unit 18050002, on left bank at upstream side of Vale Road Bridge at Richmond, 3.6 mi upstream from mouth.

DRAINAGE AREA.--7.79 mi^2.

PERIOD OF RECORD.--October 1975 to current year.

REVISED RECORDS.--WDR CA-81-2: 1979-80(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 65.56 ft above sea level.

REMARKS.--Records poor. Minor storage in Lake Anza and Jewel Lake 5 mi upstream. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,050 ft^3/s, Jan. 4, 1982, gage height, 14.68 ft recorded, 15.80 ft from floodmarks, from rating curve extended above 400 ft^3/s on basis of slope-area measurement of peak flow; no flow at times in 1979, 1987-92.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 1	0815	323	5.66	Jan. 15	1900	375	6.00
Jan. 7	0200	397	6.14	Jan. 20	1830	646	7.61
Jan. 13	0530	*1,170	10.37	Feb. 19	unknown	unknown	unknown

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.05	.19	122	4.4	e13	5.0	.87	.59	.01	.03	.02
2	.04	.07	3.9	23	e4.3	e10	3.5	.87	.40	.01	.03	.01
3	.00	.08	.44	10	e4.2	e8.4	3.2	.87	.36	.01	.01	.00
4	.00	.08	.15	7.7	e4.2	e7.2	3.0	.87	14	.00	.01	.01
5	.00	.06	.19	e14	e6.1	e6.1	2.8	.87	1.5	.00	.01	.00
6	.00	.06	5.0	e35	e9.8	e5.5	2.3	.78	.63	.00	.01	.00
7	.01	.07	5.8	168	e21	e4.9	2.3	.74	.48	.01	.01	.00
8	.01	.06	6.1	59	e44	e4.5	2.1	.70	.40	.00	.01	.00
9	.01	.05	55	26	e32	e4.2	2.3	.70	.34	.00	.01	.00
10	.02	.05	16	19	e24	3.9	2.1	.61	.28	.00	.01	.00
11	.02	.06	6.0	14	e33	3.7	2.1	.53	.24	.01	.01	.00
12	.02	.04	.88	41	e20	3.5	2.0	.47	.24	.01	.00	.00
13	.02	.05	.22	590	e15	3.6	1.8	.46	.20	.00	.00	.00
14	.03	.05	.08	157	e13	3.5	1.7	.41	.19	.01	.00	.00
15	.02	.04	.04	e106	e10	3.4	1.7	.40	.18	.01	.00	.00
16	.03	.03	.03	e69	e5.1	5.0	1.6	.40	.19	.00	.01	.00
17	.04	.04	.10	e52	e12	13	2.8	.40	.13	.01	.01	.00
18	.05	.03	.08	e73	e80	6.8	2.2	.40	.08	.01	.01	.00
19	.05	.04	.05	e48	e173	5.0	1.6	.40	.05	.01	.00	.00
20	.06	.02	.05	e332	e118	4.1	1.6	.40	.05	.01	.01	.00
21	.05	.05	e.02	117	e49	3.4	1.4	.40	.09	.01	.01	.00
22	.04	.08	e.03	61	e68	3.2	1.3	.40	.10	.01	.01	.00
23	.06	.06	e.03	25	e118	4.7	1.4	.38	.08	.02	.00	.00
24	.05	.07	e.05	16	e90	5.9	2.1	1.3	.05	.01	.01	.00
25	.05	.12	e.04	11	e50	3.1	1.4	1.3	.02	.01	.02	.00
26	.07	.13	e.05	8.9	e31	3.2	1.3	.89	.01	.02	.02	.00
27	.06	.14	e.09	7.5	e23	5.5	1.2	.83	.01	.01	.02	.00
28	.06	.15	e69	6.3	e17	4.0	1.1	.53	.01	.01	.02	.00
29	6.5	.15	e9.8	5.6	---	2.9	1.0	.41	.01	.01	.01	.00
30	.05	.16	e3.6	5.1	---	3.0	.91	.55	.01	.01	.01	.00
31	.05	---	2.4	4.7	---	3.4	---	.86	---	.02	.01	---
TOTAL	7.55	2.14	185.41	2233.8	1079.1	161.6	60.81	20.00	20.92	0.26	0.33	0.04
MEAN	.24	.071	5.98	72.1	38.5	5.21	2.03	.65	.70	.008	.011	.001
MAX	6.5	.16	69	590	173	13	5.0	1.3	14	.02	.03	.02
MIN	.00	.02	.02	4.7	4.2	2.9	.91	.38	.01	.00	.00	.00
AC-FT	15	4.2	368	4430	2140	321	121	40	41	.5	.7	.08

e Estimated.

11181390 WILDCAT CREEK AT VALE ROAD, AT RICHMOND, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.51	2.34	5.63	13.6	17.3	12.8	4.41	.81	.34	.18	.13	.18
MAX	2.20	8.89	27.8	72.1	77.8	63.4	36.1	4.68	1.52	.83	.47	.88
(WY)	1987	1982	1982	1993	1986	1983	1982	1983	1983	1983	1983	1986
MIN	.005	.071	.14	.064	.60	.28	.14	.022	.004	.001	.004	.000
(WY)	1989	1993	1990	1991	1989	1988	1990	1992	1987	1989	1987	1988

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1976 - 1993	
ANNUAL TOTAL	806.77		3771.96			
ANNUAL MEAN	2.20		10.3		4.79	
HIGHEST ANNUAL MEAN					15.3	1982
LOWEST ANNUAL MEAN					.43	1976
HIGHEST DAILY MEAN	70	Mar 6	590	Jan 13	1010	Jan 4 1982
LOWEST DAILY MEAN	.00	May 16	.00	Oct 3	.00	Aug 31 1979
ANNUAL SEVEN-DAY MINIMUM	.00	May 24	.00	Sep 5	.00	Jun 11 1987
INSTANTANEOUS PEAK FLOW			1170	Jan 13	2050	Jan 4 1982
INSTANTANEOUS PEAK STAGE			10.37	Jan 13	15.80	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	1600		7480		3470	
10 PERCENT EXCEEDS	4.0		19		7.4	
50 PERCENT EXCEEDS	.05		.19		.26	
90 PERCENT EXCEEDS	.00		.00		.01	

11182500 SAN RAMON CREEK AT SAN RAMON, CA

LOCATION.--Lat 37°46'23", long 121°59'37", in sec.8, T.2 S., R.1 W., Contre Costa County, Hydrologic Unit 18050001, on right bank 0.2 mi downstream from Bollinger Creek and 1.0 mi southwest of San Ramon.

DRAINAGE AREA.--5.89 mi^2.

PERIOD OF RECORD.--October 1952 to current yeer.

REVISED RECORDS.--WSP 1445: 1953-54(P).

GAGE.--Water-etage recorder and concrete control. Elevation of gage is 530 ft above sea level, from topographic map.

REMARKS.--Records good. No reguletion or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discherge, 1,600 ft^3/s, Oct. 13, 1962, gege height, 16.98 ft, from rating curve extended above 200 ft^3/s on besis of culvert computations et gage heights 11.80, 12.09, 14.20, and 16.98 ft; no flow for parts of most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater then base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Dete	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	0130	225	3.89	Jan. 20	1745	543	6.02
Jan. 13	0600	*718	*7.37	Feb. 18	2300	335	4.57

No flow for many deys.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.00	.00	47	7.9	9.7	e12	1.6	1.2	.48	.13	.02
2	.01	.00	.03	7.4	7.4	9.0	e8.5	1.6	1.1	.46	.09	.01
3	.01	.00	.01	3.6	7.0	8.6	e6.5	2.1	1.0	.48	.08	.02
4	.01	.00	.00	2.6	6.6	7.9	e5.7	1.8	1.1	.41	.10	.07
5	.01	.00	.00	1.9	6.3	7.4	e5.1	1.6	1.4	.36	.13	.07
6	.01	.00	.88	5.6	5.9	6.8	e4.8	1.5	1.2	.35	.15	.06
7	.01	.00	.62	44	5.6	6.4	e4.4	1.5	1.1	.33	.16	.03
8	.00	.00	1.9	17	6.4	6.3	e4.1	1.4	.99	.31	.15	.02
9	.00	.00	25	8.6	7.0	5.8	e3.9	1.3	.97	.31	.16	e.02
10	.00	.00	3.7	6.2	6.0	5.7	e3.6	1.3	.89	.31	.18	e.02
11	.00	.00	2.4	4.5	5.7	5.4	e3.5	1.4	.87	.31	.19	.02
12	.00	.00	.77	18	5.2	5.1	e3.3	1.4	.87	.31	.18	.03
13	.00	.00	.40	227	4.8	4.8	e3.2	1.3	.87	.27	.18	.03
14	.00	.00	.31	45	4.5	4.8	e3.1	1.3	.79	.27	.19	.01
15	.00	.01	.27	22	4.3	4.5	e3.0	1.3	.78	.27	.15	.01
16	.00	.01	.21	18	4.0	4.5	e3.0	1.2	.78	.28	.13	.02
17	.00	.01	.82	23	4.2	13	e6.0	1.2	.71	.27	.12	.03
18	.00	.01	.39	17	20	12	e7.0	1.2	.70	.24	.14	.07
19	.00	.01	.24	13	39	9.4	e4.7	1.1	.68	.23	.13	.07
20	.00	.00	.23	72	19	7.7	e3.5	1.1	.64	.23	.10	.06
21	.02	.00	.23	57	16	6.5	e2.6	1.1	.66	.25	.07	.05
22	.00	.01	.22	35	14	5.8	e2.8	1.1	.70	.23	.05	.03
23	.00	.00	.19	24	26	5.4	e3.4	1.0	.70	.23	.04	.04
24	.00	.00	.21	20	15	e14	e4.0	1.3	.62	.22	.03	.04
25	.00	.00	.23	17	13	e8.0	e3.0	1.6	.57	.19	.02	.03
26	.01	.00	.23	15	21	e13	e2.4	1.1	.54	.19	.01	.02
27	.01	.00	.20	14	12	e12	2.2	1.2	.52	.21	.01	.01
28	.01	.00	8.8	12	11	e10	1.9	1.1	.60	.19	.01	.01
29	.06	.00	18	11	---	e8.2	1.7	1.0	.56	.20	.03	.01
30	.02	.00	5.6	9.6	---	e8.0	1.6	.97	.53	.19	.03	.01
31	.00	---	1.9	8.7	---	e7.8	---	1.2	---	.16	.02	---
TOTAL	0.20	0.06	73.99	826.7	304.8	243.5	124.5	40.87	24.64	8.74	3.16	0.94
MEAN	.006	.002	2.39	26.7	10.9	7.85	4.15	1.32	.82	.28	.10	.031
MAX	.06	.01	25	227	39	14	12	2.1	1.4	.48	.19	.07
MIN	.00	.00	.00	1.9	4.0	4.5	1.6	.97	.52	.16	.01	.01
AC-FT	.4	.1	147	1640	605	483	247	81	49	17	6.3	1.9

e Estimated.

11182500 SAN RAMON CREEK AT SAN RAMON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.54	.63	3.37	8.38	9.09	7.35	4.88	1.31	.51	.19	.075	.050
MAX	17.0	5.49	27.2	30.8	45.4	60.6	44.9	4.92	1.99	.83	.40	.33
(WY)	1963	1984	1956	1956	1986	1983	1958	1967	1967	1958	1983	1982
MIN	.000	.000	.001	.002	.039	.17	.016	.000	.000	.000	.000	.000
(WY)	1953	1956	1977	1991	1991	1977	1977	1977	1976	1955	1954	1954

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1953 - 1993	
ANNUAL TOTAL	354.21		1652.10			
ANNUAL MEAN	.97		4.53		3.00	
HIGHEST ANNUAL MEAN					12.4	1983
LOWEST ANNUAL MEAN					.029	1977
HIGHEST DAILY MEAN	37	Feb 12	227	Jan 13	411	Oct 13 1962
LOWEST DAILY MEAN	.00	Aug 8	.00	Oct 8	.00	Oct 1 1952
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 8	.00	Oct 8	.00	Oct 1 1952
INSTANTANEOUS PEAK FLOW			718	Jan 13	1600	Oct 13 1962
INSTANTANEOUS PEAK STAGE			7.37	Jan 13	16.98	Oct 13 1962
ANNUAL RUNOFF (AC-FT)	703		3280		2170	
10 PERCENT EXCEEDS	2.0		12		5.9	
50 PERCENT EXCEEDS	.06		.68		.27	
90 PERCENT EXCEEDS	.00		.00		.00	

11456000 NAPA RIVER NEAR ST. HELENA, CA

LOCATION.--Lat 38°29'52", long 122°25'37", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on right bank 0.2 mi upstream from highway bridge, 1.3 mi northeast of Zinfandel, and 2.5 mi east of St. Helena.

DRAINAGE AREA.--81.4 mi^2.

PERIOD OF RECORD.--October 1929 to September 1932, October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1929: Drainage area. WDR CA-78-2: 1977(M).

GAGE.--Water-stage recorder. Datum of gage is 170.12 ft above sea level. Prior to Nov. 22, 1958, at datum 3.00 ft higher. Nov. 22, 1958, to July 22, 1976, at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good above 10 ft^3/s and fair below. Some regulation by Kimball Creek Reservoir, capacity 344 acre-ft, since 1939, and Ball Canyon Reservoir, capacity, 2,530 acre-ft, since 1959. Small diversions upstream from station for irrigation of about 1,500 acres.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft^3/s, Feb. 17, 1986, gage height, 18.52 ft, from rating curve extended above 11,000 ft^3/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1945	*7,930	*16.67				

Minimum daily, 0.16 ft^3/s, Oct. 4-6, 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	12	1.7	1840	105	195	73	29	17	4.9	1.4	.49
2	.19	4.5	3.5	462	96	169	64	28	15	4.1	1.5	.47
3	.18	2.6	8.2	251	90	160	61	29	15	4.0	2.1	.47
4	.16	1.8	4.5	167	83	133	59	28	41	3.9	2.0	.53
5	.16	1.7	2.9	129	90	117	55	27	47	3.5	2.0	.48
6	.16	1.6	39	293	81	105	52	27	28	3.9	1.6	.46
7	.20	1.4	75	1020	85	96	50	26	25	4.4	1.4	.44
8	.22	1.4	232	495	204	88	50	24	22	4.2	1.0	.44
9	.24	1.4	864	346	230	81	52	23	20	3.8	1.1	.44
10	.22	1.5	941	269	183	76	47	23	19	3.5	1.4	.42
11	.21	1.6	562	201	476	73	44	22	17	3.5	1.3	.41
12	.18	1.6	190	231	275	68	42	21	16	3.5	1.0	.40
13	.16	1.7	92	1800	205	64	40	20	16	3.4	.89	.39
14	.16	1.7	58	1420	167	61	38	20	15	3.2	.85	.39
15	.17	1.4	40	828	140	59	37	19	14	3.2	.83	.41
16	.18	1.6	32	968	122	62	35	19	13	3.2	.80	.41
17	.19	1.8	28	685	252	208	81	18	13	3.1	.77	.41
18	.22	1.7	24	619	695	213	83	17	12	3.3	.77	.41
19	.22	1.7	21	420	1290	140	55	16	12	3.5	.59	.40
20	.21	1.7	17	4610	1070	111	47	17	9.9	3.5	.58	.40
21	.23	1.7	15	2360	638	95	43	17	9.8	3.2	.62	.38
22	.22	2.0	13	2050	483	86	41	14	9.8	3.2	.71	.36
23	.23	2.0	12	764	1720	101	42	14	9.2	3.2	.67	.36
24	.24	2.0	9.8	491	903	130	47	18	9.1	2.9	.57	.37
25	.24	2.1	8.2	358	545	104	39	22	8.1	2.4	.55	.37
26	.24	2.0	7.4	280	391	91	37	21	8.1	1.6	.54	.37
27	.25	1.9	5.9	225	299	86	36	22	8.0	2.6	.52	.36
28	.26	1.8	117	186	237	88	35	20	7.2	2.8	.47	.36
29	18	1.7	251	156	---	78	32	16	6.3	2.7	.45	.36
30	27	1.7	219	136	---	71	31	17	6.0	2.1	.44	.36
31	12	---	298	117	---	70	---	20	---	1.6	.51	---
TOTAL	62.76	65.3	4192.1	24177	11155	3279	1448	654	468.5	101.9	29.93	12.32
MEAN	2.02	2.18	135	780	398	106	48.3	21.1	15.6	3.29	.97	.41
MAX	27	12	941	4610	1720	213	83	29	47	4.9	2.1	.53
MIN	.16	1.4	1.7	117	81	59	31	14	6.0	1.6	.44	.36
AC-FT	124	130	8320	47960	22130	6500	2870	1300	929	202	59	24

11456000 NAPA RIVER NEAR ST. HELENA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.44	38.0	179	295	305	192	90.9	21.7	7.41	2.54	1.27	.97
MAX	179	415	1088	1338	1798	1144	584	93.0	27.3	7.66	4.43	6.44
(WY)	1963	1974	1956	1970	1986	1983	1982	1983	1967	1941	1941	1982
MIN	.000	.10	.24	2.17	4.34	7.45	1.81	.88	.081	.000	.000	.000
(WY)	1978	1932	1940	1991	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1930 - 1993	
ANNUAL TOTAL	17088.95		45645.81			
ANNUAL MEAN	46.7		125		94.1	
HIGHEST ANNUAL MEAN					270	1983
LOWEST ANNUAL MEAN					1.90	1977
HIGHEST DAILY MEAN	1300	Feb 20	4610	Jan 20	13700	Feb 17 1986
LOWEST DAILY MEAN	.10	Sep 25	.16	Oct 4	.00	Sep 23 1947
ANNUAL SEVEN-DAY MINIMUM	.12	Sep 22	.18	Oct 11	.00	Sep 23 1947
INSTANTANEOUS PEAK FLOW			7930	Jan 20	16900	Feb 17 1986
INSTANTANEOUS PEAK STAGE			16.67	Jan 20	18.52	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	33900		90540		68180	
10 PERCENT EXCEEDS	101		271		183	
50 PERCENT EXCEEDS	4.6		15		7.4	
90 PERCENT EXCEEDS	.22		.37		.43	

11458000 NAPA RIVER NEAR NAPA, CA
(National Stream Quality Accounting Network Station)

LOCATION.--Let 38°22'06", long 122°18'08", in Yajome Grant, Napa County, Hydrologic Unit 18050002, on left bank at downstream side of Oak Knoll Avenue Bridge, 0.4 mi downstream from Dry Creek, 5 mi north of Napa, and 12.8 mi downstream from Conn Dam.

DRAINAGE AREA.--218 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to September 1932, October 1959 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1315-B: 1930(M). WDR CA-87-2: 1963(M), 1965(M), 1967(M), 1982-85.

GAGE.--Water-stage recorder. Datum of gage is 24.74 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Hennessey beginning in December 1945, 12.8 mi upstream, capacity 31,000 acre-ft; Rector Reservoir beginning in 1948, 12.4 mi upstream, capacity 4,400 acre-ft; Bell Canyon Reservoir beginning in 1959, 19.6 mi upstream, capacity 2,530 acre-ft. Diversions for irrigation upstream from station of about 10,000 acres.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,100 ft^3/s, Feb. 18, 1986, gage height, 30.20 ft, from floodmarks; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,000 ft^3/s, Jan. 20, gage height, 24.73 ft; no flow, Oct. 1-3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	9.2	2.7	3040	306	587	174	67	42	8.9	2.8	3.1
2	.00	9.0	3.2	980	285	517	160	65	38	8.5	2.6	2.4
3	.00	7.2	4.7	511	269	477	149	63	38	7.2	2.3	2.2
4	.04	5.6	5.8	376	253	423	142	63	39	6.9	1.6	2.3
5	.06	4.9	5.4	307	278	374	127	59	90	6.4	.43	2.8
6	.42	4.3	10	391	253	354	118	58	57	6.5	.71	3.4
7	.39	4.0	98	1860	243	326	111	57	51	6.9	1.9	3.4
8	.29	4.0	147	1060	521	300	105	56	48	6.8	2.4	3.4
9	.22	3.6	1360	670	524	279	108	56	47	6.1	2.2	2.9
10	.08	3.4	1060	519	439	262	102	55	45	5.2	1.4	3.0
11	.05	2.9	1230	420	775	252	94	55	43	6.4	2.8	2.7
12	.21	2.3	419	421	585	242	92	55	42	6.9	3.5	2.9
13	.27	2.7	219	3480	458	220	88	54	31	6.0	3.8	3.0
14	.28	2.7	137	2960	390	200	86	54	27	4.6	4.0	2.5
15	.24	2.7	104	1770	340	189	84	54	25	4.1	4.0	2.6
16	.22	2.7	78	2160	305	182	82	54	24	3.8	3.9	2.2
17	.23	2.6	66	1360	476	386	114	53	23	4.2	4.4	1.6
18	.19	2.6	59	1310	1640	445	174	48	20	4.9	4.5	1.1
19	.18	4.3	53	831	3950	349	111	47	16	4.2	4.6	1.5
20	.31	3.5	47	7600	3150	285	95	46	15	5.5	4.6	2.0
21	.32	3.2	40	7780	1800	252	87	45	15	4.9	3.6	1.9
22	.16	3.6	36	5430	1300	221	84	43	15	5.1	3.8	2.2
23	.19	3.6	33	2150	3680	226	85	41	14	5.5	4.2	2.2
24	.30	3.6	32	1400	2570	290	91	39	13	5.7	4.4	1.9
25	.30	3.4	30	1050	1480	251	86	43	13	5.4	3.9	1.8
26	.34	3.2	28	845	1070	219	85	42	11	4.4	3.3	1.7
27	.93	3.2	27	667	835	200	84	46	11	2.0	1.6	1.8
28	1.2	3.2	267	519	685	210	82	45	11	1.3	1.4	1.8
29	27	2.9	531	443	---	197	77	42	10	1.3	2.2	1.8
30	18	3.1	568	382	---	180	72	41	9.3	7.3	2.5	1.7
31	18	---	445	336	---	169	---	44	---	2.0	2.7	---
TOTAL	70.42	117.2	7145.8	53028	28860	9064	3149	1590	883.3	164.9	92.04	69.8
MEAN	2.27	3.91	231	1711	1031	292	105	51.3	29.4	5.32	2.97	2.33
MAX	27	9.2	1360	7780	3950	587	174	67	90	8.9	4.6	3.4
MIN	.00	2.3	2.7	307	243	169	72	39	9.3	1.3	.43	1.1
AC-FT	140	232	14170	105200	57240	17980	6250	3150	1750	327	183	138

11458000 NAPA RIVER NEAR NAPA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.9	89.6	280	645	660	456	188	44.5	14.3	5.01	2.76	2.41
MAX	338	616	1474	2672	4089	2598	1341	226	55.6	19.4	9.43	10.7
(WY)	1963	1974	1984	1970	1986	1983	1982	1983	1967	1983	1983	1982
MIN	.000	1.10	.73	2.17	.42	2.60	.20	.000	.000	.000	.000	.000
(WY)	1961	1991	1977	1991	1977	1977	1977	1977	1977	1961	1960	1960

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1960 - 1993	
ANNUAL TOTAL	35075.97		104234.46			
ANNUAL MEAN	95.8		286		198	
HIGHEST ANNUAL MEAN					585	1983
LOWEST ANNUAL MEAN					.72	1977
HIGHEST DAILY MEAN	2970	Feb 20	7780	Jan 21	26200	Feb 17 1986
LOWEST DAILY MEAN	.00	Sep 8	.00	Oct 1	.00	Jul 14 1960
ANNUAL SEVEN-DAY MINIMUM	.01	Sep 28	.13	Oct 1	.00	Jul 14 1960
INSTANTANEOUS PEAK FLOW			13000	Jan 20	37100	Feb 18 1986
INSTANTANEOUS PEAK STAGE			24.73	Jan 20	30.20	Feb 18 1986
ANNUAL RUNOFF (AC-FT)	69570		206700		143600	
10 PERCENT EXCEEDS	248		586		411	
50 PERCENT EXCEEDS	8.4		36		13	
90 PERCENT EXCEEDS	.31		1.6		.48	

11458000 NAPA RIVER NEAR NAPA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water yeers 1971, 1973 to September 1993 (discontinued).
CHEMICAL DATA: Water yeers 1973 to September 1993 (discontinued).
BIOLOGICAL DATA: Weter yeare 1978-81.
SPECIFIC CONDUCTANCE: Water years 1978-81.
WATER TEMPERATURE: Wster yeare 1977-81.
SEDIMENT DATA: Water years 1971, 1977 to September 1993 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1978 to September 1981.
WATER TEMPERATURE: October 1976 to September 1981.
SUSPENDED-SEDIMENT DISCHARGE: October 1976 to September 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 500 microsiemens, Sept. 1, 1981; minimum recorded, 81 microsiemens, Mar. 1, 1979.
WATER TEMPERATURE: Maximum recorded, 28.0°C, July 13, 1979; minimum recorded, 3.0°C, Dec. 31, 1978, Jan 1, 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
18...	1115	2.7	519	8.0	10.5	0.50	766	9.9	88	59	K12
JAN											
27...	1430	617	267	7.9	10.5	17	763	9.4	84	K23	58
MAR											
18...	1200	491	251	8.1	14.5	20	767	9.4	92	800	840
MAY											
25...	1115	44	427	8.3	17.5	2.9	766	8.3	86	100	160
JUL											
13...	1130	6.4	493	8.1	20.0	0.50	765	8.3	91	35	26
SEP											
22...	1130	2.3	549	8.2	15.5	0.50	765	8.1	81	K300	66

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
NOV											
18...	210	18	32	32	27	22	0.8	2.2	236	0	192
JAN											
27...	110	19	19	15	12	19	0.5	2.2	110	0	90
MAR											
18...	96	0	17	13	12	21	0.5	1.9	117	0	96
MAY											
25...	180	28	30	25	21	20	0.7	2.2	183	0	150
JUL											
13...	210	30	33	31	23	19	0.7	2.3	219	0	180
SEP											
22...	240	26	40	35	24	17	0.7	2.3	266	0	218

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
NOV										
18...	46	32	0.20	31	314	321	0.43	<0.010	0.030	0.470
JAN										
27...	28	9.9	0.10	31	180	181	0.24	--	0.030	--
MAR										
18...	24	9.0	<0.10	29	157	168	0.21	--	<0.010	--
MAY										
25...	51	17	0.30	35	266	280	0.36	--	<0.010	--
JUL										
13...	53	19	0.20	31	304	307	0.41	--	<0.010	--
SEP										
22...	54	22	0.20	31	326	342	0.44	--	<0.010	--

11458000 NAPA RIVER NEAR NAPA, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)
NOV										
18...	0.510	0.020	<0.010	<0.20	0.040	0.060	0.030	0.050	<10	79
JAN										
27...	2.00	--	0.040	0.20	0.080	0.050	--	0.060	30	50
MAR										
18...	0.930	--	0.020	0.30	0.090	0.040	--	0.050	--	--
MAY										
25...	1.70	--	0.030	<0.20	0.070	0.040	--	0.040	10	76
JUL										
13...	1.40	--	0.020	0.30	0.050	0.060	--	0.040	--	--
SEP										
22...	0.390	--	0.020	<0.20	0.040	0.030	--	0.030	<10	86

DATE	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
NOV										
18...	<3	12	42	14	<10	2	<1	<1.0	230	<6
JAN										
27...	<3	26	11	14	<10	3	<1	<1.0	140	<6
MAR										
18...	--	--	--	--	--	--	--	--	--	--
MAY										
25...	<3	16	31	14	<10	2	<1	<1.0	220	<6
JUL										
13...	--	--	--	--	--	--	--	--	--	--
SEP										
22...	<3	4	28	15	<10	2	<1	<1.0	250	<6

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR											
18...*	1509	4.40	57.0	248	7.9	15.0	767	9.7	96	48	98
18...*	1514	5.30	48.0	252	7.9	15.0	767	9.6	95	45	100
18...*	1519	5.10	36.0	249	7.9	15.0	767	9.7	96	44	100
18...*	1524	5.40	26.0	248	7.8	15.0	767	9.7	96	46	100
18...*	1529	5.10	13.0	248	7.8	15.0	767	9.7	96	44	100

* Instantaneous streamflow at the time of cross-sectional measurement: Mar. 18, 463 ft^3/s

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV						
18...	1115	2.7	10.5	2	0.02	85
JAN						
27...	1430	617	10.5	26	43	98
MAR						
18...	1200	491	14.5	37	49	96
18...	1510	463	15.0	45	56	100
MAY						
25...	1115	44	17.5	6	0.71	97
JUL						
13...	1130	6.4	20.0	8	0.14	92
SEP						
22...	1130	2.3	15.5	8	0.05	80

11459500 NOVATO CREEK AT NOVATO, CA

LOCATION.--Lat 38°06'28", long 122°34'44", in Novato Grant, Marin County, Hydrologic Unit 18050002, on left bank in Novato, 100 ft upstream from 7th Street Bridge, and 3.9 mi downstream from Novato Creek Dam.

DRAINAGE AREA.--17.6 mi^2.

PERIOD OF RECORD.--October 1946 to current year. Prior to October 1966, published as "near Novato."

GAGE.--Water-stage recorder. Datum of gage is 14.76 ft above sea level. Prior to Aug. 23, 1967, at site 0.6 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Stafford Lake beginning Dec. 1, 1951, capacity, 4,500 acre-ft since Oct. 18, 1954; contents, 2,110 acre-ft, Sept. 30, 1992. Diversion from Stafford Lake for municipal water supply began Apr. 25, 1952, and amounted to 2,124 acre-ft for the current year. No diversion from Russian River into Stafford Lake during the current year.

COOPERATION.--Records of diversions and storage were provided by North Marin Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft^3/s, Jan. 4, 1982, gage height, 14.52 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,120 ft^3/s, Feb. 22, gage height, 9.09 ft; no flow for several days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	1.0	.00	84	21	60	8.7	1.6	1.2	.87	.82	.33
2	.44	.84	2.6	17	19	49	7.5	1.5	1.0	.83	.67	.27
3	.33	.70	2.0	10	17	43	6.5	3.1	.98	.58	.73	.30
4	.15	.57	.17	7.9	14	35	6.2	1.4	4.7	.67	.68	.22
5	.08	.34	.09	7.2	18	30	5.4	1.2	1.4	.69	.67	.20
6	.15	.43	35	60	14	26	4.5	1.2	1.0	.77	.55	.30
7	.17	.28	3.2	100	35	22	4.2	1.3	.93	.75	.51	.28
8	.93	.21	12	32	76	20	4.2	1.3	1.1	.63	.49	.21
9	.41	.16	31	19	36	17	4.4	1.3	.93	.66	.42	.17
10	.09	.08	48	16	35	15	4.0	1.3	.87	.63	.37	.18
11	.01	.05	20	11	47	12	3.5	1.4	1.1	.68	.37	.21
12	.03	.05	7.7	61	36	10	3.1	1.5	.89	.67	.39	.24
13	.10	.05	4.5	404	33	9.2	3.0	1.4	.90	.80	.38	.21
14	.12	.02	3.4	154	30	8.4	3.1	1.2	.84	.68	.40	.24
15	.11	.01	2.9	171	28	7.7	2.8	.31	1.1	.67	.41	.26
16	.13	.03	2.6	107	26	13	2.5	1.2	1.0	.73	.38	.26
17	.10	.02	3.0	158	102	17	7.4	1.2	1.0	.70	.33	.21
18	.04	.00	2.3	129	202	17	5.0	1.2	.94	.68	.29	.22
19	.13	.00	2.2	97	269	13	3.7	1.3	.90	.70	.29	.19
20	2.1	.01	2.0	431	176	12	2.9	1.2	.92	.71	.37	.16
21	2.0	.00	2.2	370	135	11	2.8	1.2	1.0	.73	.32	.10
22	.37	.24	2.6	271	161	8.6	3.0	1.2	.95	.69	.28	.21
23	.31	.03	2.4	180	302	10	2.8	1.2	.94	.75	.22	.10
24	.30	.02	2.3	128	181	9.8	2.4	3.1	.93	.77	.24	.07
25	.31	.00	2.2	95	138	8.7	2.3	1.5	.91	.79	.29	.04
26	.41	.00	2.1	70	109	8.0	2.3	5.5	.93	.80	.19	.02
27	.31	.00	2.1	54	88	10	2.9	1.7	.88	.83	.14	.01
28	.35	.00	37	42	72	9.2	3.5	1.1	1.4	.79	.14	.01
29	21	.00	39	34	---	8.0	3.3	.96	1.1	.80	.33	.00
30	2.6	.00	14	28	---	7.0	2.9	2.1	.89	.74	.39	.00
31	1.2	---	18	24	---	8.5	---	2.4	---	.66	.41	---
TOTAL	35.12	5.14	308.56	3372.1	2420	535.1	120.8	49.07	33.63	22.45	12.47	5.22
MEAN	1.13	.17	9.95	109	86.4	17.3	4.03	1.58	1.12	.72	.40	.17
MAX	21	1.0	48	431	302	60	8.7	5.5	4.7	.87	.82	.33
MIN	.01	.00	.00	7.2	14	7.0	2.3	.31	.84	.58	.14	.00
AC-FT	70	10	612	6690	4800	1060	240	97	67	45	25	10

11459500 NOVATO CREEK AT NOVATO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.76	3.24	15.6	45.4	41.9	24.5	9.60	1.41	.70	.62	.37	.30
MAX	9.07	17.2	117	189	239	207	81.3	12.9	7.73	8.61	8.53	5.40
(WY)	1963	1974	1956	1970	1986	1983	1958	1983	1980	1980	1980	1967
MIN	.000	.000	.000	.26	.35	.84	.17	.016	.000	.000	.000	.000
(WY)	1947	1948	1950	1948	1948	1976	1977	1961	1951	1947	1947	1947

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1947 - 1993	
ANNUAL TOTAL	1966.21		6919.66			
ANNUAL MEAN	5.37		19.0		11.9	
HIGHEST ANNUAL MEAN					47.9	1983
LOWEST ANNUAL MEAN					.40	1976
HIGHEST DAILY MEAN	178	Mar 5	431	Jan 20	2850	Jan 4 1982
LOWEST DAILY MEAN	.00	Jun 17	.00	Nov 18	.00	Oct 1 1946
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 4	.00	Nov 25	.00	Oct 1 1946
INSTANTANEOUS PEAK FLOW			1120	Feb 22	5000	Jan 4 1982
INSTANTANEOUS PEAK STAGE			9.09	Feb 22	14.52	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	3900		13730		8620	
10 PERCENT EXCEEDS	13		45		21	
50 PERCENT EXCEEDS	.49		1.2		.55	
90 PERCENT EXCEEDS	.00		.10		.00	

11460000 CORTE MADERA CREEK AT ROSS, CA

LOCATION.--Lat 37°57'45", long 122°33'20", in Punta de Quentin Grant, Marin County, Hydrologic Unit 18050002, on left bank behind fire station at Ross, 1.7 mi southwest of San Rafael, 1.7 mi below Phoenix Lake, and 4 mi upstream from mouth.

DRAINAGE AREA.--18.1 mi^2.

PERIOD OF RECORD.--February 1951 to September 1993 (discontinued).

REVISED RECORDS.--WDR CA-85-2: 1982(M).

GAGE.--Water-stage recorder. Datum of gage is 7.97 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records poor. Flow slightly regulated by Phoenix Lake, capacity 612 acre-ft. Diversion on tributary upstream from station by Marin Municipal Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,200 ft^3/s, Jan. 4, 1982, gage height, 19.81 ft, from rating curve extended above 2,700 ft^3/s; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 6	2345	1,760	13.23	Jan. 20	1630	*3,350	*17.04
Jan. 13	0415	2,710	15.89	Feb. 19	0300	1,330	11.69

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.26	.48	319	18	35	14	3.0	2.2	.97	.17	.00
2	.00	.17	7.1	82	17	28	10	3.0	2.1	.85	.32	.00
3	.00	.12	8.1	41	16	30	8.8	3.3	2.0	.87	2.7	.00
4	.00	.11	.60	26	15	21	7.8	3.0	14	.67	.19	.00
5	.00	.12	.67	20	23	18	7.2	2.9	7.9	.58	.17	.00
6	.00	.13	68	256	17	17	6.7	2.8	6.3	.50	.18	.00
7	.00	.14	8.9	516	58	14	6.4	2.9	6.0	.49	.19	.00
8	.00	.18	120	164	165	13	6.2	2.7	5.6	.49	.18	.00
9	.00	.18	302	86	76	12	6.1	2.6	5.1	.49	.13	.00
10	.00	.18	232	54	67	10	5.6	2.5	4.8	.47	.11	.00
11	.00	.19	85	35	84	9.8	5.3	2.5	4.4	.46	.16	.00
12	.00	.21	23	163	57	9.1	4.9	2.5	4.2	.45	.17	.00
13	.00	.22	9.6	1580	45	8.7	4.7	2.5	4.0	.44	.19	.00
14	.00	.26	7.4	444	36	8.2	4.6	2.5	3.8	.42	.20	.00
15	.00	.32	5.8	510	29	8.0	4.4	2.6	3.6	.43	.20	.00
16	.00	.36	6.2	309	25	14	4.0	2.5	3.4	.43	.19	.00
17	.00	.38	5.3	281	290	46	16	2.5	3.1	.42	.15	.00
18	.00	.35	2.2	179	370	28	6.6	2.5	2.8	.40	.10	.00
19	.00	.41	1.8	92	626	19	5.2	2.4	2.5	.42	.10	.00
20	.02	.37	1.6	1470	292	15	4.6	2.4	2.4	.40	.10	.00
21	.04	.34	1.5	488	156	13	4.1	2.3	2.3	.43	.09	.00
22	.00	.59	1.4	230	202	11	3.9	2.2	2.2	.41	.08	.00
23	.00	.33	1.5	130	408	15	4.1	2.1	1.9	.43	.05	.00
24	.00	.30	1.6	88	197	13	4.1	4.9	1.6	.39	.01	.00
25	.00	.31	1.6	61	122	11	3.8	2.7	1.4	.41	.00	.00
26	.00	.32	1.5	47	87	9.5	3.6	4.7	1.3	.43	.00	.00
27	.00	.33	2.0	37	64	23	3.6	2.6	1.3	.42	.00	.00
28	.00	.36	215	30	46	17	3.4	2.2	1.2	.41	.00	.00
29	44	.39	122	26	---	12	3.3	2.1	1.1	.41	.00	.00
30	.64	.43	52	23	---	11	3.1	2.6	.97	.36	.00	.00
31	.29	---	52	20	---	14	---	3.3	---	.28	.00	---
TOTAL	44.99	8.36	1347.85	7807	3608	513.3	176.1	85.3	105.47	15.03	6.13	0.00
MEAN	1.45	.28	43.5	252	129	16.6	5.87	2.75	3.52	.48	.20	.000
MAX	44	.59	302	1580	626	46	16	4.9	14	.97	2.7	.00
MIN	.00	.11	.48	20	15	8.0	3.1	2.1	.97	.28	.00	.00
AC-FT	89	17	2670	15490	7160	1020	349	169	209	30	12	.00

11460000 CORTE MADERA CREEK AT ROSS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.10	16.9	52.0	89.5	85.2	53.6	21.0	4.37	1.65	.64	.35	.52
MAX	39.5	135	293	338	410	344	153	24.7	10.7	2.98	1.45	3.73
(WY)	1963	1974	1956	1970	1986	1983	1958	1957	1967	1967	1958	1959
MIN	.001	.043	.46	.22	1.62	2.25	1.71	.68	.12	.002	.000	.000
(WY)	1991	1991	1991	1991	1977	1988	1990	1977	1977	1977	1977	1988

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1951 - 1993	
ANNUAL TOTAL	5686.15		13717.53			
ANNUAL MEAN	15.5		37.6		27.2	
HIGHEST ANNUAL MEAN					77.0	1983
LOWEST ANNUAL MEAN					1.25	1977
HIGHEST DAILY MEAN	527	Feb 19	1580	Jan 13	3840	Jan 4 1982
LOWEST DAILY MEAN	.00	Aug 7	.00	Oct 1	.00	Jul 20 1956
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 7	.00	Oct 1	.00	Jul 20 1956
INSTANTANEOUS PEAK FLOW			3350	Jan 20	7200	Jan 4 1982
INSTANTANEOUS PEAK STAGE			17.04	Jan 20	19.81	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	11280		27210		19700	
10 PERCENT EXCEEDS	27		83		51	
50 PERCENT EXCEEDS	.59		2.4		1.9	
90 PERCENT EXCEEDS	.00		.00		.10	

11460400 LAGUNITAS CREEK AT SAMUEL P. TAYLOR STATE PARK, CA

LOCATION.--Lat 38°01'37", long 122°44'07", Marin County, Hydrologic Unit 18050005, in Samuel P. Taylor State Park, on left bank 300 ft upstream from Deadman's Gulch, 0.9 mi downstream from park entrance, 2.1 mi northwest of Lagunitas, and 3.4 mi downstream from Kent Lake.

DRAINAGE AREA.--34.3 mi^2.

PERIOD OF RECORD.--December 1982 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 102.89 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Kent Lake, capacity, 16,680 acre-ft, and Alpine Lake, capacity, 8,890 acre-ft, both of which divert for domestic and industrial use in Marin County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,470 ft^3/s, Feb. 18, 1986, gage height, 8.44 ft; minimum daily, 3.8 ft^3/s, Oct. 16-18, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,070 ft^3/s, Jan. 20, gage height, 7.14 ft; minimum daily, 4.0 ft^3/s, Oct. 7-13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	20	15	284	35	84	49	13	11	6.4	5.1	4.6
2	4.7	20	23	85	32	68	45	13	8.9	6.6	5.1	4.6
3	4.4	20	24	47	29	69	41	13	9.3	6.7	5.1	4.6
4	4.2	19	22	33	27	58	39	13	13	6.7	5.1	4.6
5	4.2	19	21	26	35	47	35	12	15	6.4	5.1	4.6
6	4.1	19	75	106	30	43	31	12	13	6.8	5.0	4.6
7	4.0	19	40	347	34	38	29	12	12	6.8	5.1	4.6
8	4.0	19	98	135	99	34	27	12	11	6.8	5.1	4.6
9	4.0	19	333	80	115	31	26	12	11	6.9	5.1	4.6
10	4.0	19	291	58	113	28	23	13	10	6.7	5.1	4.6
11	4.0	19	130	43	166	27	22	13	9.5	6.6	5.1	4.6
12	4.0	19	56	56	135	26	22	13	9.2	6.8	5.1	4.6
13	4.0	19	34	903	109	22	21	13	8.8	7.4	5.1	4.4
14	6.3	19	25	308	89	20	21	11	8.5	6.9	5.1	4.5
15	10	19	22	258	73	21	20	9.3	8.2	6.7	5.1	4.8
16	12	19	22	203	60	26	20	9.3	8.2	6.7	5.1	4.7
17	12	19	24	178	174	56	44	9.2	8.1	6.7	5.1	4.6
18	12	19	22	157	412	70	35	8.9	7.8	6.7	5.1	4.6
19	15	19	20	97	675	77	28	9.6	7.6	6.7	5.7	4.7
20	18	20	19	1240	550	72	25	9.9	7.6	6.7	5.2	4.7
21	15	20	23	868	334	61	22	9.5	7.4	6.7	5.1	4.6
22	19	20	27	618	250	52	20	9.1	7.5	6.4	5.0	4.6
23	21	20	26	402	585	52	19	8.6	7.3	6.0	4.8	4.6
24	22	18	26	261	420	60	19	10	6.9	5.7	4.6	4.6
25	22	18	26	184	284	51	18	11	6.6	5.6	4.5	4.6
26	22	15	26	140	200	44	16	11	6.6	5.6	4.5	4.7
27	22	18	26	105	142	44	16	12	6.5	5.4	4.6	4.9
28	22	17	147	68	107	47	15	11	6.0	5.2	4.5	4.9
29	50	11	92	49	---	44	15	11	6.5	5.3	4.4	4.8
30	19	9.1	51	42	---	40	14	11	6.5	5.7	4.6	4.6
31	20	---	51	38	---	41	---	14	---	5.3	4.6	---
TOTAL	393.6	550.1	1837	7419	5314	1453	777	349.4	265.5	197.6	153.8	139.1
MEAN	12.7	18.3	59.3	239	190	46.9	25.9	11.3	8.85	6.37	4.96	4.64
MAX	50	20	333	1240	675	84	49	14	15	7.4	5.7	4.9
MIN	4.0	9.1	15	26	27	20	14	8.6	6.0	5.2	4.4	4.4
AC-FT	781	1090	3640	14720	10540	2880	1540	693	527	392	305	276

11460400 LAGUNITAS CREEK AT SAMUEL P. TAYLOR STATE PARK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7.49	21.5	42.6	65.1	121	107	19.2	14.4	8.04	6.37	5.51	5.43
MAX	13.4	66.3	173	239	421	503	67.3	40.7	10.3	7.61	7.05	6.53
(WY)	1990	1985	1984	1993	1986	1983	1983	1983	1990	1991	1991	1991
MIN	4.34	4.74	6.84	14.5	11.2	13.6	8.39	7.43	6.30	4.92	4.44	4.29
(WY)	1987	1987	1987	1991	1989	1988	1987	1987	1987	1992	1984	1984

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1983 - 1993	
ANNUAL TOTAL	9685.5		18849.1			
ANNUAL MEAN	26.5		51.6		28.0	
HIGHEST ANNUAL MEAN					65.2	1986
LOWEST ANNUAL MEAN					14.7	1987
HIGHEST DAILY MEAN	460	Feb 19	1240	Jan 20	2350	Feb 17 1986
LOWEST DAILY MEAN	4.0	Oct 7	4.0	Oct 7	3.8	Oct 16 1986
ANNUAL SEVEN-DAY MINIMUM	4.0	Oct 7	4.0	Oct 7	4.0	Oct 16 1986
INSTANTANEOUS PEAK FLOW			2070	Jan 20	3470	Feb 18 1986
INSTANTANEOUS PEAK STAGE			7.14	Jan 20	8.44	Feb 18 1986
ANNUAL RUNOFF (AC-FT)	19210		37390		20270	
10 PERCENT EXCEEDS	45		108		51	
50 PERCENT EXCEEDS	16		17		9.9	
90 PERCENT EXCEEDS	4.6		4.6		5.0	

11460600 LAGUNITAS CREEK NEAR POINT REYES STATION, CA

LOCATION.--Lat 38°04'49", long 122°47'00", in Nicasio (Black) Grant, Marin County, Hydrologic Unit 18050005, on right bank at upstream side of road bridge, 300 ft downstream from small right-bank tributary, 1.4 mi northeast of town of Point Reyes Station, and 2.5 mi downstream from Nicasio Dam.

DRAINAGE AREA.--81.7 mi^2.

PERIOD OF RECORD.--October 1974 to current year.
WATER TEMPERATURE: October 1989 to September 1990.
SEDIMENT DATA: October 1989 to September 1990.

REVISED RECORDS.--WDR CA-79-2: 1975, 1978. WDR CA-82-2: 1975(M), 1978(M), 1980(M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 50 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Nicasio Reservoir, capacity, 22,450 acre-ft; Kent Lake, capacity, 16,680 acre-ft; and Alpine Lake, capacity, 8,890 acre-ft, all of which divert water for domestic and industrial use in Marin County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,100 ft^3/s, Jan. 4, 1982, gage height, 26.96 ft, from rating curve extended above 6,200 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.01 ft^3/s, Sept. 26, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,700 ft^3/s, Jan. 20, gage height, 19.53 ft; minimum daily, 4.7 ft^3/s, Sept. 21, 22, 24-26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	22	21	451	74	183	92	19	15	7.8	6.1	5.2
2	5.7	21	24	154	68	150	78	18	11	7.9	5.9	5.2
3	5.5	21	27	84	62	147	70	19	10	7.9	5.8	5.2
4	5.3	20	24	58	57	125	66	18	12	7.9	5.9	5.3
5	5.3	20	22	47	71	103	58	17	18	7.6	6.1	5.2
6	5.3	20	66	95	65	91	51	17	15	7.6	6.2	5.2
7	5.2	20	62	634	66	79	47	16	14	7.5	6.3	5.2
8	5.2	20	49	465	219	70	44	16	13	7.3	6.4	5.1
9	5.3	20	459	319	241	61	45	16	12	7.5	6.1	5.0
10	5.3	20	439	234	223	55	39	16	12	7.3	6.1	5.2
11	5.1	20	240	159	339	52	35	16	11	7.2	6.1	5.3
12	5.3	20	92	153	273	50	32	17	11	7.0	6.1	5.2
13	5.3	20	52	3820	219	45	29	16	10	7.3	5.8	5.2
14	5.3	20	35	1750	181	40	28	16	9.9	7.5	5.9	5.2
15	8.5	20	26	887	149	38	27	13	10	7.2	5.9	5.2
16	10	20	26	980	125	44	26	13	9.8	6.9	5.9	5.3
17	11	20	27	721	395	125	69	12	9.6	7.0	5.9	5.1
18	11	20	25	674	1170	138	75	12	9.3	6.9	5.6	4.9
19	11	21	22	396	1630	130	51	13	8.9	6.7	5.8	4.8
20	17	21	20	4450	1300	115	41	13	8.8	6.7	6.3	4.8
21	14	21	21	2530	733	98	36	13	8.8	6.7	5.7	4.7
22	17	21	27	1330	537	83	31	12	8.6	6.7	5.6	4.7
23	19	21	26	789	1810	85	28	12	8.6	6.9	5.4	4.8
24	19	21	26	503	1010	113	31	13	8.5	6.8	5.4	4.7
25	19	21	25	354	617	94	27	15	8.4	6.6	5.3	4.7
26	20	21	25	270	420	76	24	14	8.3	7.0	5.2	4.7
27	20	21	24	208	303	77	22	15	8.2	6.8	5.2	4.8
28	20	21	154	154	231	85	21	14	7.6	6.4	5.0	4.8
29	53	21	147	119	---	76	21	13	7.8	6.5	5.0	4.8
30	26	21	81	99	---	67	20	13	7.9	6.4	5.2	4.9
31	22	---	65	81	---	65	---	17	---	6.8	5.2	---
TOTAL	391.8	616	2379	22968	12588	2760	1264	464	313.0	220.3	178.5	150.7
MEAN	12.6	20.5	76.7	741	450	89.0	42.1	15.0	10.4	7.11	5.76	5.02
MAX	53	22	459	4450	1810	183	92	19	18	7.9	6.4	5.3
MIN	5.1	20	20	47	57	38	20	12	7.6	6.4	5.0	4.7
AC-FT	777	1220	4720	45560	24970	5470	2510	920	621	437	354	299

11460600 LAGUNITAS CREEK NEAR POINT REYES STATION, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.62	38.4	95.0	209	279	212	61.3	15.1	6.55	5.05	4.34	4.07
MAX	19.2	177	542	991	1193	1109	531	86.4	14.1	8.68	6.95	6.34
(WY)	1984	1983	1984	1982	1986	1983	1982	1983	1983	1983	1991	1991
MIN	.19	1.35	1.51	2.37	3.52	7.40	1.59	.67	.45	1.77	1.47	1.12
(WY)	1977	1977	1977	1976	1977	1977	1977	1977	1977	1976	1976	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1975 - 1993	
ANNUAL TOTAL	14114.8		44293.3			
ANNUAL MEAN	38.6		121		77.1	
HIGHEST ANNUAL MEAN					269	1983
LOWEST ANNUAL MEAN					2.54	1977
HIGHEST DAILY MEAN	895	Feb 20	4450	Jan 20	10700	Jan 4 1982
LOWEST DAILY MEAN	4.9	Sep 27	4.7	Sep 21	.01	Sep 26 1977
ANNUAL SEVEN-DAY MINIMUM	5.0	Sep 25	4.7	Sep 20	.02	Oct 14 1977
INSTANTANEOUS PEAK FLOW			7700	Jan 20	22100	Jan 4 1982
INSTANTANEOUS PEAK STAGE			19.53	Jan 20	26.96	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	28000		87860		55850	
10 PERCENT EXCEEDS	76		232		125	
50 PERCENT EXCEEDS	20		20		8.0	
90 PERCENT EXCEEDS	5.3		5.2		2.2	

11460750 WALKER CREEK NEAR MARSHALL, CA

LOCATION.--Lat 38°10'33", long 122°49'02", in Soulejule (Vasquez) Grant, Marin County, Hydrologic Unit 18050005, on right bank 0.8 mi downstream from Verde Canyon, 2.8 mi below confluence of Arroyo Sausal and Salmon Creek, and 4.0 mi east of Marshall.

DRAINAGE AREA.--31.1 mi^2.

PERIOD OF RECORD.--October 1983 to current yeer.

GAGE.--Water-atege recorder end crest-stege gage. Elevation of gage is 140 ft above sea level, from topographic map.

REMARKS.--Recorde fair. Flow effected by regulation and diversions and by Soulejule Reservoir on Arroyo Sausal; reaervoir capacity, 10,570 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft^3/s, Feb. 17, 1986, gege height, 10.79 ft, from rating curve extended above 1,100 ft^3/s on basis of comparison with discontinued downstream station Walker Creek near Tomales; minimum daily, 0.73 ft^3/s, Nov. 26, 1991.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of Jan. 4, 1982, reached a stege of 15.9 ft, present datum, from floodmarks, discharge, 14,600 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,060 ft^3/s, Jan. 20, gege height, 9.34 ft; minimum daily, 3.9 ft^3/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	5.1	4.6	362	22	52	28	6.4	5.2	4.2	4.0	4.0
2	4.8	4.8	5.1	76	20	44	23	6.3	5.0	4.2	4.0	4.0
3	4.8	4.7	5.1	41	18	47	19	6.5	4.8	4.2	4.0	4.0
4	4.8	4.6	4.7	33	16	37	18	6.4	5.5	4.2	4.0	4.0
5	5.0	4.6	4.6	28	21	32	16	6.3	5.4	4.2	4.0	4.0
6	5.1	4.6	7.1	104	19	27	15	6.2	5.1	4.2	4.0	4.0
7	5.1	4.6	5.6	321	19	24	14	6.1	5.0	4.3	4.0	4.0
8	5.1	4.6	8.5	119	70	22	14	6.0	4.7	4.2	4.0	4.0
9	5.1	4.6	41	63	73	21	14	6.0	4.6	4.2	4.0	4.0
10	5.1	4.6	128	46	58	19	12	5.9	4.6	4.2	4.0	4.0
11	5.1	4.6	76	34	178	18	12	5.7	4.6	4.2	4.0	4.0
12	5.1	4.6	39	121	113	18	11	5.7	4.6	4.2	4.0	4.0
13	5.1	4.4	22	2430	74	17	11	5.7	4.6	4.2	4.0	4.0
14	5.1	4.4	17	916	56	16	11	5.7	4.6	4.2	4.0	4.0
15	5.1	4.4	17	461	44	16	11	5.7	4.4	4.0	4.0	4.0
16	5.1	4.4	16	438	38	17	10	5.7	4.4	4.0	4.0	4.0
17	5.1	4.4	17	364	184	36	13	5.7	4.4	4.0	4.0	4.0
18	5.1	4.4	15	348	470	48	12	5.7	4.4	4.0	4.0	4.0
19	5.1	4.4	15	215	650	41	11	5.7	4.4	4.0	4.0	4.0
20	5.5	4.4	14	2480	472	32	10	5.0	4.4	4.0	4.0	4.0
21	5.7	4.4	14	1140	282	27	10	4.8	4.4	4.0	4.0	4.0
22	5.1	4.6	14	531	274	23	9.8	4.8	4.2	4.0	4.0	4.0
23	4.9	4.6	13	290	1030	29	9.8	4.8	4.2	4.0	4.0	4.0
24	4.8	4.6	13	170	304	42	10	5.2	4.2	4.0	4.0	4.0
25	4.8	4.6	13	110	160	34	9.2	5.2	4.2	4.0	4.0	4.0
26	4.8	4.6	13	78	107	29	9.1	5.5	4.2	4.0	4.0	4.0
27	4.8	4.6	13	55	77	29	9.3	5.4	4.2	4.0	4.0	4.0
28	4.8	4.6	25	43	62	33	9.3	5.1	4.2	4.0	4.0	e4.0
29	9.9	4.6	49	36	---	28	9.3	5.0	4.2	4.0	4.0	e4.0
30	5.2	4.6	58	29	---	24	7.9	4.9	4.2	4.0	4.0	e3.9
31	4.8	---	50	24	---	24	---	5.6	---	4.0	4.0	---
TOTAL	160.7	137.0	737.3	11506	4911	906	378.7	174.7	136.9	126.9	124.0	119.9
MEAN	5.18	4.57	23.8	371	175	29.2	12.6	5.64	4.56	4.09	4.00	4.00
MAX	9.9	5.1	128	2480	1030	52	28	6.5	5.5	4.3	4.0	4.0
MIN	4.8	4.4	4.6	24	16	16	7.9	4.8	4.2	4.0	4.0	3.9
AC-FT	319	272	1460	22820	9740	1800	751	347	272	252	246	238

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11460750 WALKER CREEK NEAR MARSHALL, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.64	11.6	36.8	63.3	99.5	45.6	9.06	5.39	4.54	4.38	4.39	4.44
MAX	6.27	46.3	247	371	588	140	14.1	6.76	5.56	5.80	5.80	5.80
(WY)	1990	1984	1984	1993	1986	1986	1985	1984	1984	1984	1984	1984
MIN	1.35	1.23	1.85	1.71	2.14	10.4	5.52	2.18	1.90	1.42	1.42	1.22
(WY)	1991	1992	1991	1991	1991	1988	1991	1991	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1984 - 1993	
ANNUAL TOTAL	5304.9		19419.1			
ANNUAL MEAN	14.5		53.2		24.1	
HIGHEST ANNUAL MEAN					67.5	1986
LOWEST ANNUAL MEAN					7.41	1991
HIGHEST DAILY MEAN	234	Feb 19	2480	Jan 20	4940	Feb 17 1986
LOWEST DAILY MEAN	4.4	Nov 13	3.9	Sep 30	.73	Nov 26 1991
ANNUAL SEVEN-DAY MINIMUM	4.4	Nov 13	4.0	Sep 24	.78	Nov 23 1991
INSTANTANEOUS PEAK FLOW			5060	Jan 20	7050	Feb 17 1986
INSTANTANEOUS PEAK STAGE			9.34	Jan 20	10.79	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	10520		38520		17460	
10 PERCENT EXCEEDS	29		73		29	
50 PERCENT EXCEEDS	5.3		5.1		5.5	
90 PERCENT EXCEEDS	4.6		4.0		2.2	

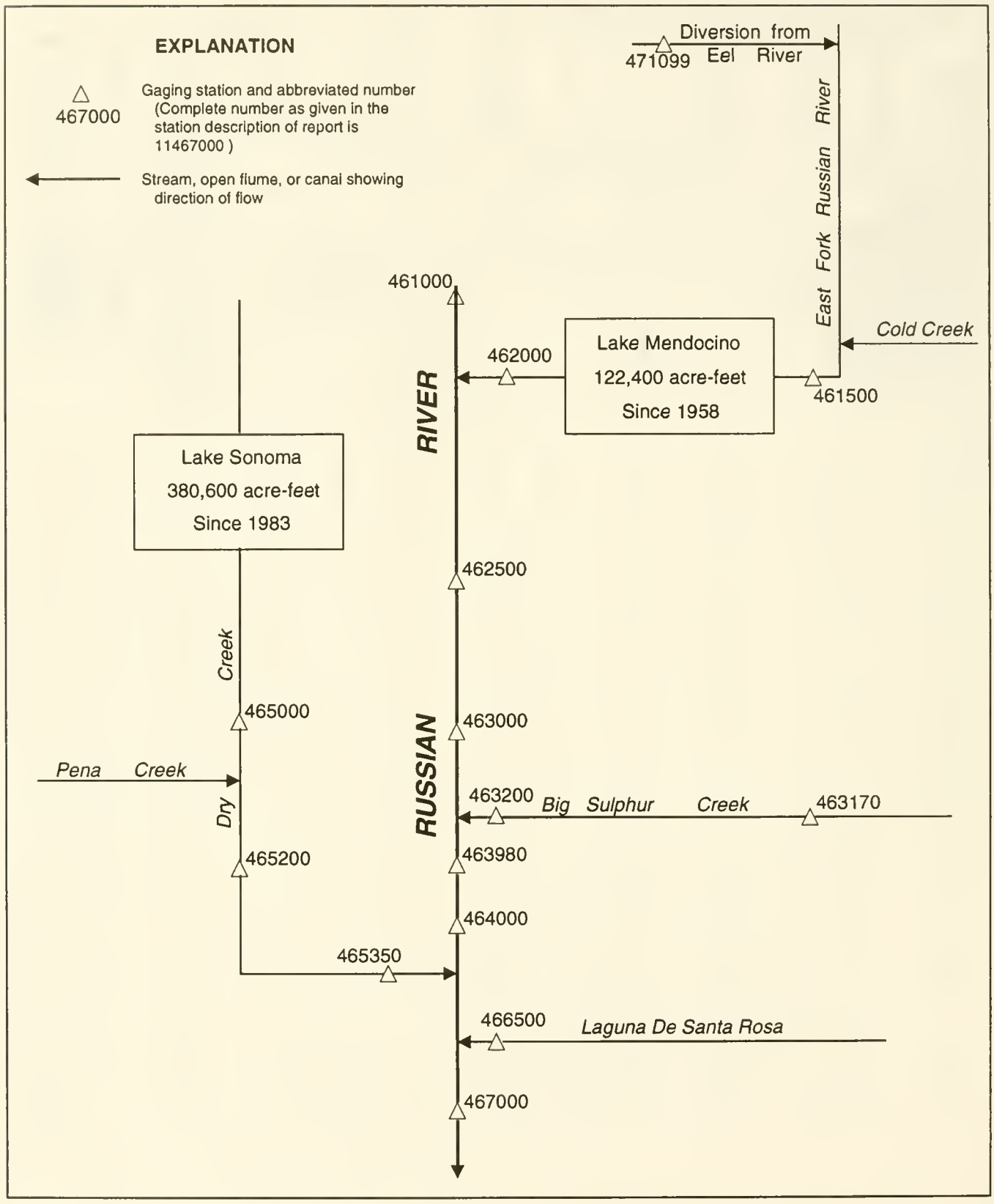

Figure 24. Diversions and storege in Rusaian River basin.

11461000 RUSSIAN RIVER NEAR UKIAH, CA

LOCATION.--Lat 39°11'44", long 123°11'38", in Yokaya Grant, Mendocino County, Hydrologic Unit 18010110, on right bank 20 ft downstream from bridge on Lake Mendocino Drive, 0.4 mi upstream from East Fork, 0.6 mi downstream from York Creek, and 3.2 mi north of Ukiah.

DRAINAGE AREA.--100 mi^2.

PERIOD OF RECORD.--August 1911 to September 1913, October 1952 to current year. Monthly discharge only for some periods, published in WSP 1315-B.
CHEMICAL DATA: Water years 1977-79.
BIOLOGICAL DATA: Water years 1977-79.
WATER TEMPERATURE: Water years 1965-68.
SEDIMENT DATA: Water years 1964-68, 1991-92.

REVISED RECORDS.--WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 599.22 ft above sea level. Prior to October 1952, nonrecording gage at bridge 20 ft upstream at different datum. Oct. 1, 1952, to Nov. 8, 1971, water-stage recorder at site 0.6 mi upstream at different datum.

REMARKS.--Records fair. No regulation. Diversions upstream from station for irrigation of about 1,000 acres.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,900 ft^3/s, Dec. 21, 1955, gage height, 19.0 ft, site and datum then in use; maximum gage height, 20.87 ft, Jan. 20, 1993; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 8	2015	6,950	14.88	Jan. 14	0245	5,530	13.81
Dec. 31	1745	12,600	18.26	Jan. 20	1430	*17,700	*20.87

Minimum daily, 0.06 ft^3/s, Oct. 11, 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	35	3.9	e1300	120	203	187	60	215	12	2.6	1.3
2	6.6	30	10	600	109	186	149	55	137	11	2.4	1.1
3	2.0	16	77	343	101	191	128	59	100	11	1.8	1.1
4	.60	9.7	45	259	94	157	137	63	100	10	1.8	1.1
5	.38	6.3	26	249	92	137	131	51	139	9.8	2.0	1.1
6	.27	4.7	334	528	87	126	116	47	157	9.4	1.9	1.1
7	.16	4.0	326	1000	83	115	106	43	104	9.3	1.6	1.1
8	.12	3.9	2150	549	125	106	139	40	82	7.4	1.8	1.1
9	.10	3.6	e800	566	121	98	153	38	70	7.2	1.6	1.1
10	.07	3.4	e2000	504	155	90	128	34	62	7.2	1.7	1.1
11	.06	3.3	982	341	492	84	109	33	55	6.1	1.8	1.1
12	.06	3.0	518	288	276	79	96	34	49	5.9	1.8	1.2
13	.09	2.9	289	610	198	76	91	34	45	6.5	1.7	1.3
14	.38	2.8	214	2090	164	79	83	33	40	6.0	1.3	1.5
15	.56	2.8	163	843	141	75	79	30	37	7.2	1.2	2.1
16	.69	2.7	128	731	124	80	73	28	35	6.6	1.5	2.1
17	.78	2.6	139	482	370	680	206	26	35	5.1	1.5	2.1
18	.76	9.8	134	374	941	551	231	24	39	4.3	2.0	2.2
19	.81	5.2	94	329	2520	316	140	25	30	4.7	2.5	2.3
20	4.0	5.1	126	9390	1640	217	114	33	24	5.0	2.5	1.9
21	4.3	5.5	121	e2600	1160	170	101	31	23	4.8	2.7	1.5
22	1.8	39	92	e2000	840	143	91	29	21	4.5	2.1	1.5
23	1.3	40	76	938	1530	288	124	26	20	5.1	1.3	1.6
24	1.0	21	64	610	786	635	172	26	19	5.3	1.1	1.8
25	.97	13	54	440	528	305	112	27	17	6.0	1.2	1.8
26	.72	9.2	45	333	394	231	98	165	15	5.4	1.1	1.8
27	.67	7.5	37	270	306	189	89	196	12	5.8	1.1	1.6
28	.79	6.5	254	221	242	164	80	98	14	4.1	1.1	1.4
29	10	5.4	844	188	---	137	72	68	14	3.0	1.6	1.2
30	33	4.7	497	162	---	118	66	74	13	4.0	1.8	1.2
31	24	---	e5000	135	---	125	---	365	---	4.2	1.6	---
TOTAL	100.04	308.6	15642.9	29273	13739	6151	3601	1895	1723	203.9	53.7	44.4
MEAN	3.23	10.3	505	944	491	198	120	61.1	57.4	6.58	1.73	1.48
MAX	33	40	5000	9390	2520	680	231	365	215	12	2.7	2.3
MIN	.06	2.6	3.9	135	83	75	66	24	12	3.0	1.1	1.1
AC-FT	198	612	31030	58060	27250	12200	7140	3760	3420	404	107	88

e Estimated.

11461000 RUSSIAN RIVER NEAR UKIAH, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.50	125	353	530	480	353	158	38.8	10.7	2.12	.50	.54
MAX	147	682	1663	1765	1975	1436	770	149	57.4	10.8	2.52	2.70
(WY)	1963	1974	1965	1970	1958	1983	1963	1983	1993	1983	1983	1983
MIN	.000	.15	1.77	3.82	14.3	20.0	4.33	3.15	.22	.000	.000	.000
(WY)	1953	1953	1960	1991	1977	1988	1977	1977	1977	1977	1977	1970

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1912 - 1993	
ANNUAL TOTAL	47941.31		72735.54			
ANNUAL MEAN	131		199		171	
HIGHEST ANNUAL MEAN					420	1983
LOWEST ANNUAL MEAN					5.76	1977
HIGHEST DAILY MEAN	5000	Dec 31	9390	Jan 20	13300	Dec 22 1964
LOWEST DAILY MEAN	.00	Aug 7	.06	Oct 11	.00	Oct 1 1911
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 7	.09	Oct 7	.00	Oct 1 1911
INSTANTANEOUS PEAK FLOW			17700	Jan 20	18900	Dec 21 1955
INSTANTANEOUS PEAK STAGE			20.87	Jan 20	20.87	Jan 20 1993
ANNUAL RUNOFF (AC-FT)	95090		144300		123500	
10 PERCENT EXCEEDS	270		486		403	
50 PERCENT EXCEEDS	6.3		35		12	
90 PERCENT EXCEEDS	.04		1.2		.10	

11461500 EAST FORK RUSSIAN RIVER NEAR CALPELLA, CA

LOCATION.--Lat 39°14'48", long 123°07'45", in NW 1/4 NW 1/4 sec.18, T.16 N., R.11 W., Mendocino County, Hydrologic Unit 18010110, on left bank 0.1 mi downstream from Cold Creek and 3.9 mi east of Calpella.

DRAINAGE AREA.--92.2 mi^2.

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 787.87 ft above sea level. Prior to May 28, 1957, at site 1.3 mi downstream at different datum. May 28, 1957, to Apr. 5, 1966, at site 0.4 mi downstream at same datum.

REMARKS.--Records fair. Flow greatly affected by diversion from Eel River through Potter Valley Powerplant Intake and Tailrace (stations 11471000, 11471099, respectively). Diversion for irrigation of about 8,000 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,700 ft^3/s, Dec. 22, 1964, gage height, 20.21 ft, site then in use; maximum gage height, 22.89 ft, Jan. 20, 1993; minimum daily, 1.7 ft^3/s, July 23, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 8	2015	6,020	17.31	Jan. 20	1445	*10,200	*22.89
Dec. 31	2015	8,680	21.13	Feb. 19	1915	3,740	14.31

Minimum daily, 51 ft^3/s, Aug. 19, 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	186	145	e2000	442	476	441	344	443	268	113	e127
2	154	180	157	681	424	484	405	340	382	272	119	e127
3	154	167	166	532	419	467	382	341	360	263	123	e126
4	155	154	157	463	417	441	394	338	391	269	130	e121
5	146	158	152	435	417	430	373	327	413	272	133	e123
6	144	156	501	722	407	422	374	331	403	268	139	e124
7	147	155	322	1260	407	417	370	335	372	267	136	e122
8	144	155	2200	667	449	412	390	349	357	271	131	e121
9	131	150	1530	722	448	407	390	344	349	247	135	e200
10	130	151	1610	713	566	413	380	340	343	121	134	e275
11	143	151	977	e600	880	404	359	336	338	132	139	281
12	155	151	431	e515	541	400	354	338	336	134	138	284
13	151	152	261	e1200	494	397	364	340	333	126	123	284
14	143	153	217	e2000	473	397	362	337	329	119	111	288
15	131	153	201	930	457	392	360	318	319	136	115	289
16	127	153	219	981	443	403	356	333	318	142	117	278
17	139	153	355	737	772	821	521	332	316	132	125	288
18	149	150	350	631	1390	578	465	320	318	141	121	287
19	145	155	333	620	2520	471	399	321	306	144	51	297
20	152	152	355	6410	1270	434	384	338	300	125	51	304
21	169	148	345	3360	1020	419	377	329	304	139	108	304
22	157	159	332	1630	915	407	371	323	290	137	107	301
23	150	156	327	933	1590	514	367	329	287	144	e123	296
24	153	152	308	737	857	736	391	322	280	123	e124	293
25	150	151	287	640	679	485	367	327	292	131	e126	298
26	152	150	308	583	591	446	358	464	273	137	e127	298
27	153	153	306	540	537	427	358	322	289	133	e127	280
28	155	151	591	505	501	417	355	350	281	123	e127	274
29	171	147	1250	483	---	404	346	339	276	129	e128	283
30	189	147	720	472	---	394	346	359	267	134	e129	278
31	189	---	5130	455	---	422	---	720	---	116	e128	---
TOTAL	4675	4649	20543	33157	20326	14117	11459	10886	9865	5295	3738	7251
MEAN	151	155	663	1070	726	455	382	351	329	171	121	242
MAX	189	186	5130	6410	2520	821	521	720	443	272	139	304
MIN	127	147	145	435	407	392	346	318	267	116	51	121
AC-FT	9270	9220	40750	65770	40320	28000	22730	21590	19570	10500	7410	14380

e Estimated.

11461500 EAST FORK RUSSIAN RIVER NEAR CALPELLA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	232	294	481	616	607	517	353	233	163	141	142	194
MAX	352	738	1476	1720	1755	1611	847	422	329	275	276	298
(WY)	1963	1982	1965	1970	1958	1983	1982	1983	1993	1967	1952	1967
MIN	4.89	74.0	30.2	42.2	21.5	42.7	11.9	23.5	15.3	8.25	19.0	23.9
(WY)	1960	1978	1960	1991	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1942 - 1993	
ANNUAL TOTAL	96688		145961			
ANNUAL MEAN	264		400		330	
HIGHEST ANNUAL MEAN					586	1983
LOWEST ANNUAL MEAN					76.8	1977
HIGHEST DAILY MEAN	5130	Dec 31	6410	Jan 20	12500	Dec 22 1964
LOWEST DAILY MEAN	47	Sep 3	51	Aug 19	1.7	Jul 23 1990
ANNUAL SEVEN-DAY MINIMUM	85	Sep 1	97	Aug 16	3.2	Jul 11 1977
INSTANTANEOUS PEAK FLOW			10200	Jan 20	18700	Dec 22 1964
INSTANTANEOUS PEAK STAGE			22.89	Jan 20	22.89	Jan 20 1993
ANNUAL RUNOFF (AC-FT)	191800		289500		239000	
10 PERCENT EXCEEDS	409		672		548	
50 PERCENT EXCEEDS	152		319		258	
90 PERCENT EXCEEDS	104		128		79	

11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA

LOCATION.--Lat 39°11'51", long 123°11'11", in Yokaye Grant, Mendocino County, Hydrologic Unit 18010110, on right bank of outlet channel, 500 ft downstream from Coyote Dam, 1,300 ft upstream from mouth, and 3.2 mi northeast of Ukieh.

DRAINAGE AREA.--105 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1911 to September 1913, October 1951 to June 1956, October 1957 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 614.41 ft above sea level. Prior to October 1951, nonrecording gage at site 0.5 mi upstream at different datum. October 1951 to June 1956, water-stage recorder at site 1.0 mi upstream at different datum.

REMARKS.--No estimeted daily discherges. Records good. Flow affected by diversion from Eel River through Potter Valley Powerplant Intake (station 11471000) and since November 1958 by storage in Lake Mendocino, capacity, 122,400 acre-ft, 500 ft upstream. Diversions upstream from station for irrigation of about 8,000 acres.

EXTREMES FOR PERIOD OF RECORD.--Prior to reguletion by Lake Mendocino, maximum discherge, 13,300 ft^3/s, Dec. 21, 1955, gage height, 16.86 ft, site end datum then in use, from reting curve extended above 6,300 ft^3/s on basis of maximum flow at stetion upstream which was defined to 8,600 ft^3/s; no flow Aug. 13-15, 1913. Meximum discharge (water years 1959-93), 7,350 ft^3/s, Jan. 24, 1970, gege height, 10.84 ft; minimum daily, 0.02 ft^3/s, Apr. 17, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discherge, 4,080 ft^3/s, Jan. 2, gage height, 6.93 ft; minimum daily, 18 ft^3/s, Feb. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	246	150	153	680	281	224	242	259	431	263	234	232
2	242	150	153	2980	136	222	244	263	492	263	234	214
3	242	150	153	3800	131	222	246	263	495	264	234	210
4	239	149	153	2710	137	222	246	265	494	266	238	210
5	233	146	153	976	355	222	246	336	496	267	238	210
6	227	146	153	303	503	222	246	419	497	267	238	210
7	228	146	104	303	504	222	246	415	503	264	238	210
8	229	146	79	573	504	224	246	410	503	202	235	210
9	226	146	26	768	500	226	246	410	503	213	237	210
10	226	146	26	756	497	226	246	409	341	234	238	210
11	226	146	59	740	497	226	246	432	237	234	230	210
12	220	150	102	736	497	226	246	373	238	232	222	211
13	202	153	97	740	497	226	418	234	238	230	222	217
14	195	153	105	1280	497	228	508	316	307	230	222	222
15	197	153	105	1610	497	230	504	316	399	230	222	222
16	198	69	105	1010	497	230	365	319	401	230	223	222
17	195	113	105	1010	339	230	548	321	397	230	225	222
18	195	145	103	1000	18	232	831	320	270	230	226	222
19	195	155	105	848	19	234	543	319	180	232	226	222
20	189	151	105	209	282	234	349	320	180	234	226	222
21	184	152	107	22	1620	234	289	316	180	224	230	222
22	184	153	114	22	1660	235	294	320	180	206	242	221
23	179	153	116	2260	1590	238	298	321	189	208	250	222
24	170	153	122	3930	2640	238	298	293	206	210	250	222
25	170	153	128	3710	2920	238	300	268	262	223	250	222
26	161	153	128	2830	1220	238	394	267	352	234	253	222
27	155	153	128	1420	222	238	458	408	350	234	254	222
28	153	153	105	466	222	240	458	434	317	234	252	222
29	150	153	263	514	---	242	463	326	263	234	253	223
30	150	153	1190	514	---	242	342	329	263	231	252	222
31	150	---	455	514	---	242	---	331	---	233	250	---
TOTAL	6156	4392	5000	39234	19282	7153	10606	10332	10164	7286	7344	6538
MEAN	199	146	161	1266	689	231	354	333	339	235	237	218
MAX	246	155	1190	3930	2920	242	831	434	503	267	254	232
MIN	150	69	26	22	18	222	242	234	180	202	222	210
AC-FT	12210	8710	9920	77820	38250	14190	21040	20490	20160	14450	14570	12970

11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1958, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	200	271	576	871	649	461	399	309	213	162	166	161
MAX	316	437	1138	1289	1784	709	775	367	307	260	272	266
(WY)	1958	1913	1956	1956	1958	1958	1958	1912	1953	1953	1953	1954
MIN	20.0	21.0	40.0	258	105	182	214	226	102	65.0	23.8	2.03
(WY)	1912	1912	1912	1912	1913	1913	1955	1913	1913	1912	1913	1913

SUMMARY STATISTICS	WATER YEARS 1911 - 1958	
ANNUAL MEAN	356	
HIGHEST ANNUAL MEAN	526	1958
LOWEST ANNUAL MEAN	183	1912
HIGHEST DAILY MEAN	7300	Dec 22 1955
LOWEST DAILY MEAN	.00	Aug 13 1913
ANNUAL SEVEN-DAY MINIMUM	1.4	Aug 13 1913
INSTANTANEOUS PEAK FLOW	13300	Dec 21 1955
INSTANTANEOUS PEAK STAGE	16.86	Dec 21 1955
ANNUAL RUNOFF (AC-FT)	257700	
10 PERCENT EXCEEDS	647	
50 PERCENT EXCEEDS	286	
90 PERCENT EXCEEDS	63	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	222	255	388	616	600	456	315	219	221	253	262	241
MAX	379	635	1175	1905	1934	1780	1026	419	339	336	388	416
(WY)	1975	1984	1965	1970	1986	1983	1982	1983	1993	1961	1961	1974
MIN	42.3	13.4	6.97	20.7	17.9	13.3	52.6	76.3	104	179	163	92.7
(WY)	1978	1978	1978	1977	1977	1977	1977	1968	1988	1988	1988	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1960 - 1993	
ANNUAL TOTAL	89804		133487			
ANNUAL MEAN	245		366		336	
HIGHEST ANNUAL MEAN					598	1983
LOWEST ANNUAL MEAN					103	1977
HIGHEST DAILY MEAN	1650	Feb 16	3930	Jan 24	6620	Jan 25 1970
LOWEST DAILY MEAN	26	Dec 9	18	Feb 18	.02	Apr 17 1973
ANNUAL SEVEN-DAY MINIMUM	70	Dec 7	70	Dec 7	.14	Jan 2 1971
INSTANTANEOUS PEAK FLOW			4080	Jan 2	7350	Jan 24 1970
INSTANTANEOUS PEAK STAGE			6.93	Jan 2	10.84	Jan 24 1970
ANNUAL RUNOFF (AC-FT)	178100		264800		243600	
10 PERCENT EXCEEDS	294		506		522	
50 PERCENT EXCEEDS	228		234		233	
90 PERCENT EXCEEDS	111		146		60	

11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953-55, 1964-68, 1973 to current year.
CHEMICAL DATA: Water years 1953-55, 1973-82.
BIOLOGICAL DATA: Water year 1977-78.
WATER TEMPERATURE: Water years 1953-55, 1965-68, 1973 to current year.
SEDIMENT DATA: Water years 1953-55, 1964-68.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: December 1952 to March 1955, October 1964 to September 1968, October 1972 to current year.
SUSPENDED-SEDIMENT DISCHARGE: December 1952 to March 1955, January 1964 to September 1968.

INSTRUMENTATION.--Water-temperature recorder since October 1972. Digital recorder set for 1-hour interval punches.

REMARKS.--Interruptions in record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 23.5°C on several days in 1977; minimum recorded, 7.0°C, Jan. 14, 1973, many days in 1984, several days in 1989, Feb. 23, 25-28, 1990.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 21.0°C, Oct. 1-5; minimum recorded, 7.5°C, several days in January.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.0	21.0	18.0	17.5	13.0	12.5	9.0	8.0	8.5	8.5	8.0	8.0
2	21.0	21.0	18.0	17.5	12.5	12.5	8.5	8.5	8.5	8.5	8.5	8.0
3	21.0	21.0	18.0	17.5	12.5	12.5	8.5	8.5	8.5	8.0	8.5	8.0
4	21.0	20.5	18.0	17.5	12.5	12.0	8.5	8.5	8.5	8.0	8.5	8.0
5	21.0	20.5	18.0	17.5	12.0	12.0	8.5	8.5	8.5	8.0	8.5	8.0
6	20.5	20.0	18.0	17.5	12.0	11.5	8.5	8.5	8.5	8.5	8.5	8.0
7	20.5	20.0	17.5	17.5	12.0	11.0	8.5	8.5	8.5	8.5	8.5	8.0
8	20.5	20.0	17.5	17.5	11.0	10.5	8.5	8.0	8.5	8.5	8.5	8.0
9	20.5	20.0	17.5	17.5	11.0	10.5	8.5	8.0	8.5	8.0	8.5	8.5
10	20.0	20.0	17.5	16.5	10.5	10.5	8.0	8.0	8.5	8.0	8.5	8.5
11	20.0	20.0	16.5	16.0	11.0	10.5	8.0	8.0	8.5	8.0	8.5	8.5
12	20.5	20.0	16.5	15.5	11.0	10.5	8.0	7.5	8.5	8.5	8.5	8.5
13	20.0	19.5	16.0	15.5	11.0	10.0	8.0	8.0	8.5	8.0	8.5	8.5
14	20.0	19.5	15.5	15.5	11.0	10.0	8.0	7.5	8.5	8.0	8.5	8.5
15	20.0	20.0	15.5	15.5	10.0	10.0	8.0	7.5	8.5	8.0	8.5	8.5
16	20.0	19.5	15.5	15.0	10.0	9.5	8.0	7.5	8.5	8.0	8.5	8.5
17	20.0	19.5	15.5	15.0	10.0	10.0	8.0	7.5	8.5	8.5	8.5	8.5
18	19.5	19.5	15.5	15.0	10.0	9.5	8.0	7.5	9.0	8.5	8.5	8.5
19	19.5	19.0	15.0	15.0	10.0	9.5	8.0	7.5	9.0	8.0	8.5	8.5
20	19.0	19.0	15.0	14.5	10.0	9.5	10.5	7.5	8.5	8.0	9.0	8.5
21	19.0	19.0	15.0	14.5	9.5	9.0	10.5	8.5	8.5	8.5	8.5	8.5
22	19.0	18.5	14.5	14.0	9.5	8.5	10.5	9.0	8.5	8.5	8.5	8.5
23	19.0	18.5	14.0	13.5	9.5	8.5	9.0	8.5	8.5	8.5	8.5	8.5
24	19.0	18.5	14.0	13.5	9.5	9.0	8.5	8.5	8.5	8.5	8.5	8.5
25	19.0	18.5	14.0	13.5	9.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
26	18.5	18.5	13.5	13.0	9.0	8.5	8.5	8.5	9.0	8.0	9.0	8.5
27	18.5	18.5	13.5	13.0	9.0	8.5	9.5	8.5	8.5	8.0	8.5	8.5
28	18.5	18.5	13.5	13.0	9.5	8.5	9.5	8.5	8.5	8.0	9.0	8.5
29	18.5	18.5	13.5	13.0	9.0	8.5	8.5	8.5	---	---	9.0	8.5
30	18.5	18.0	13.0	13.0	9.0	8.5	8.5	8.5	---	---	9.0	8.5
31	18.0	18.0	---	---	9.0	8.5	8.5	8.5	---	---	9.0	8.5
MONTH	21.0	18.0	18.0	13.0	13.0	8.5	10.5	7.5	9.0	8.0	9.0	8.0

11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	8.5	10.0	9.5	12.0	11.0	---	---	---	---	18.5	18.0
2	9.0	8.5	10.5	9.5	12.0	11.5	---	---	---	---	18.5	18.0
3	9.0	9.0	10.0	9.5	12.0	11.5	---	---	---	---	18.5	18.0
4	9.0	8.5	10.5	9.5	12.0	12.0	---	---	---	---	18.5	18.0
5	9.0	8.5	10.5	9.5	12.5	11.5	---	---	---	---	19.0	18.0
6	9.0	8.5	10.5	10.0	12.0	12.0	---	---	---	---	19.0	18.0
7	9.5	8.5	10.5	10.0	12.5	12.0	---	---	---	---	19.0	18.5
8	9.0	8.5	10.5	10.0	12.5	12.0	---	---	---	---	19.0	18.5
9	9.0	9.0	10.5	10.0	12.5	12.0	---	---	---	---	19.0	18.5
10	9.5	9.0	11.0	10.5	12.5	12.0	---	---	---	---	19.5	18.5
11	9.5	8.5	11.0	10.0	12.5	12.0	---	---	---	---	19.5	18.5
12	9.5	9.0	10.5	10.5	12.5	12.0	---	---	---	---	19.5	19.0
13	9.5	9.0	13.0	10.5	12.5	12.0	---	---	17.0	16.5	19.5	18.5
14	9.5	9.0	11.0	10.5	13.0	12.0	---	---	17.0	16.5	20.0	19.0
15	9.5	9.5	11.0	10.5	13.0	12.5	---	---	17.0	16.5	20.0	19.0
16	9.5	9.5	11.0	10.5	13.5	12.0	---	---	17.0	16.5	19.5	19.5
17	9.5	9.0	11.0	10.5	13.0	12.5	---	---	17.5	16.5	20.0	19.5
18	9.5	9.5	11.0	11.0	13.0	12.0	---	---	17.5	16.5	20.0	19.5
19	9.5	9.0	11.0	11.0	13.0	12.0	---	---	17.5	17.0	20.0	19.5
20	9.5	9.5	11.0	11.0	13.0	12.5	---	---	17.5	17.0	20.5	19.5
21	9.5	9.5	11.0	10.5	---	---	---	---	17.5	17.0	20.5	20.0
22	9.5	9.0	11.5	11.0	---	---	---	---	17.5	17.0	20.5	19.5
23	9.5	9.0	11.5	11.0	---	---	---	---	18.0	17.0	20.5	19.5
24	9.5	9.5	11.5	11.0	---	---	---	---	18.0	17.0	20.5	20.0
25	10.0	9.5	11.5	11.0	---	---	---	---	18.0	17.0	20.5	20.0
26	10.0	9.0	11.5	11.0	---	---	---	---	18.0	17.0	20.5	20.0
27	10.0	9.5	12.0	11.0	---	---	---	---	18.0	17.5	20.5	20.0
28	10.0	9.5	12.0	11.0	---	---	---	---	18.0	17.5	20.5	20.0
29	10.0	9.5	12.0	11.0	---	---	---	---	18.5	17.5	20.0	20.0
30	10.0	9.5	12.0	11.5	---	---	---	---	18.5	17.5	20.5	20.0
31	---	---	12.0	11.5	---	---	---	---	18.5	18.0	---	---
MONTH	10.0	8.5	13.0	9.5	---	---	---	---	---	---	20.5	18.0

11462500 RUSSIAN RIVER NEAR HOPLAND, CA

LOCATION.--Lat 39°01'36", long 123°07'46", in Rancho de Sanel Grant, Mendocino County, Hydrologic Unit 18010110, on right bank at abendoned highway bridge, 0.2 mi downstream from McNab Creek, 4 mi north of Hopland, and 15.2 mi downstream from Coyote Valley Dam on the East Fork Russian River.

DRAINAGE AREA.--362 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current yeer. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1041: Drainage erea.

GAGE.--Water-stage recorder and crest-stage gege. Datum of gage is 497.61 ft above see level. Prior to Sept. 9, 1943, nonrecording gage at same site and datum.

REMARKS.--Records feir. Diversions for irrigation of about 11,800 acres upstream from station. Flow also effected by diversion into basin (see REMARKS for East Fork Russian River stations) and since November 1958 by storege in Lake Mendocino, capacity, 129,600 acre-feet, 15.2 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,000 ft^3/s, Dec. 22, 1955, gege height, 27.00 ft; minimum daily, 9.1 ft^3/s, Apr. 20, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached e stege of 30.0 ft, from floodmerks.

EXTREMES FOR CURRENT YEAR.--Maximum discherge, 28,300 ft^3/s, Jan. 20, gege height, 21.55 ft; minimum daily, 78 ft^3/s, Nov. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	217	163	160	8970	845	836	686	426	743	284	228	223
2	225	164	169	3750	633	766	615	410	712	273	219	193
3	228	161	223	3580	594	746	580	408	662	276	224	184
4	221	158	199	3000	572	670	574	418	725	273	223	179
5	226	158	181	1860	675	620	565	425	789	284	222	180
6	216	158	598	1060	839	590	541	507	789	282	224	195
7	217	155	813	2400	841	559	522	506	697	292	223	195
8	216	155	2520	1620	978	537	534	501	655	240	228	183
9	212	155	4880	1760	943	508	585	496	628	228	229	180
10	212	155	3530	1910	937	484	539	491	530	248	231	176
11	218	155	2400	1430	1740	489	501	499	390	241	226	180
12	214	155	1610	1250	1270	508	471	475	368	245	212	177
13	194	155	1020	1890	1100	495	541	354	352	238	205	182
14	190	155	811	5240	1020	497	633	402	364	238	210	191
15	190	156	698	3840	970	490	630	397	453	234	210	196
16	187	136	629	2790	926	484	562	397	455	234	216	197
17	185	78	614	2030	1510	1100	793	394	446	241	216	196
18	185	149	609	1710	2650	1130	1180	385	390	238	212	191
19	187	160	564	1390	5980	838	863	389	270	245	216	187
20	192	159	583	15500	4740	706	667	402	254	238	214	196
21	197	158	601	8630	4100	637	569	398	245	237	204	205
22	187	169	562	5510	3850	e592	545	389	236	238	205	203
23	184	172	535	3800	5270	720	565	384	226	e237	221	204
24	169	168	523	4720	4630	1340	657	372	241	e235	225	203
25	168	164	518	4360	4220	880	568	344	252	e233	225	204
26	166	163	506	3610	2780	764	581	613	354	e230	222	202
27	158	162	498	2600	1160	698	630	689	368	228	221	202
28	157	162	804	1230	960	662	620	647	362	225	221	202
29	161	162	2010	1140	---	608	e603	505	304	228	225	199
30	178	161	2030	1060	---	571	e483	494	291	228	225	197
31	163	---	8930	996	---	569	---	830	---	229	227	---
TOTAL	6020	4681	40328	104636	56733	21094	18403	14347	13551	7620	6809	5802
MEAN	194	156	1301	3375	2026	680	613	463	452	246	220	193
MAX	228	172	8930	15500	5980	1340	1180	830	789	292	231	223
MIN	157	78	160	996	572	484	471	344	226	225	204	176
AC-FT	11940	9280	79990	207500	112500	41840	36500	28460	26880	15110	13510	11510

e Estimated.

11462500 RUSSIAN RIVER NEAR HOPLAND, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	231	444	1174	1745	1726	1257	719	319	215	198	206	207
MAX	555	1656	4849	5856	6799	5361	2572	820	452	326	369	383
(WY)	1958	1984	1965	1970	1958	1983	1982	1983	1993	1961	1961	1974
MIN	35.1	96.5	87.6	37.2	28.7	57.1	44.1	77.0	59.6	79.7	105	78.9
(WY)	1978	1978	1991	1977	1977	1977	1977	1977	1949	1948	1950	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1940 - 1993	
ANNUAL TOTAL	182395		300024			
ANNUAL MEAN	498		822		699	
HIGHEST ANNUAL MEAN					1587	1983
LOWEST ANNUAL MEAN					94.0	1977
HIGHEST DAILY MEAN	8930	Dec 31	15500	Jan 20	33800	Dec 22 1955
LOWEST DAILY MEAN	78	Nov 17	78	Nov 17	9.1	Apr 20 1977
ANNUAL SEVEN-DAY MINIMUM	141	Nov 12	141	Nov 12	13	Apr 15 1977
INSTANTANEOUS PEAK FLOW			28300	Jan 20	45000	Dec 22 1955
INSTANTANEOUS PEAK STAGE			21.55	Jan 20	27.00	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	361800		595100		506400	
10 PERCENT EXCEEDS	812		1800		1530	
50 PERCENT EXCEEDS	218		394		254	
90 PERCENT EXCEEDS	169		169		136	

11462500 RUSSIAN RIVER NEAR BOPLAND, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water yeers 1951 to March 1979, October 1989 to current year.
CHEMICAL DATA: Weter years 1951-66.
WATER TEMPERATURE: Water years 1965-79.
SEDIMENT DATA: October 1989 to September 1993 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: September 1965 to March 1979.

REMARKS.--Zero bedload discharge observed at flows less than 160 ft^3/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM
NOV								
03...	1410	160	17.5	4	1.7	81	--	--
DEC								
09...	1400	3110	--	288	2420	96	99	100
JAN								
12...	1715	1240	7.0	46	154	82	--	--
21...	1300	5710	11.0	788	12100	--	--	--
FEB								
12...	1345	1230	12.0	58	193	83	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	TEMPER-ATURE WATER (DEG C)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM
JAN								
21...	1525	11.0	1	92.0	6030	4	8	28
21...	1535	11.0	1	142	6030	--	--	1
21...	1545	11.0	1	112	6030	--	--	4
21...	1555	11.0	1	123	6030	--	1	11
21...	1600	11.0	1	193	6030	--	--	2

DATE	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
JAN								
21...	36	48	60	92	100	--	--	--
21...	2	6	17	32	49	72	100	--
21...	8	15	30	49	66	100	--	--
21...	19	33	53	72	85	100	--	--
21...	4	5	8	12	25	48	61	100

11462500 RUSSIAN RIVER NEAR HOPLAND, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)
DEC										
09...	1500	1000	1100	0.250	0	1430	1530	30	5.0	1
JAN										
12...	1630	1000	1100	0.250	0	1625	1635	60	15.0	1
21...	1355	1000	1100	0.250	0	1335	1415	10	7.0	2
21...	1435	1000	1100	0.250	0	1420	1450	10	7.0	2
FEB										
12...	1452	1000	1100	0.250	0	1430	1515	30	5.0	1

DATE	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
DEC									
09...	25	25	22.0	2940	--	2.90	362	--	--
JAN									
12...	5	5	15.0	1240	7.0	0.06	4.5	--	1
21...	21	21	22.0	5860	11.0	4.90	603	--	--
21...	21	21	22.0	5900	11.0	3.30	603	--	--
FEB									
12...	16	16	15.0	1220	12.0	0.11	8.8	--	--

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
DEC									
09...	--	--	2	14	41	70	91	100	--
JAN									
12...	15	49	70	84	94	98	100	--	--
21...	2	4	7	12	22	46	76	91	100
21...	3	6	10	21	38	57	84	100	--
FEB									
12...	22	83	94	97	99	100	--	--	--

11463000 RUSSIAN RIVER NEAR CLOVERDALE, CA

LOCATION.--Lat 38°52'46", long 123°03'09", in NW 1/4 NW 1/4 sec.23, T.12 N., R.11 W., Mendocino County, Hydrologic Unit 18010110, on left bank 0.3 mi downstream from Cummisky Creek, 5.5 mi northwest of Cloverdale, and 28 mi downstream from Coyote Dam.

DRAINAGE AREA.--503 mi^2.

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 350 ft above sea level, from topographic map. Prior to July 30, 1970, at site 0.2 mi upstream at different datum.

REMARKS.--No estimated daily discharge. Records fair. Diversions for irrigation of about 15,000 acres upstream from station. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations) and since November 1958 by storage in Lake Mendocino.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 ft^3/s, Dec. 22, 1964, gage height, 31.60 ft, site and datum then in use; minimum daily, 12 ft^3/s, Apr. 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,900 ft^3/s, Jan. 21, gage height, 19.60 ft; minimum daily, 101 ft^3/s, Nov. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	186	170	14800	1120	1440	793	573	1050	266	212	213
2	227	180	181	5150	813	1300	1010	515	957	249	201	193
3	239	172	280	4530	725	1240	888	493	862	246	194	175
4	229	165	237	3590	661	1110	808	507	893	242	203	176
5	234	163	208	1890	678	1020	774	475	1080	256	205	173
6	225	161	1060	3340	893	949	760	557	1050	267	207	187
7	222	159	1530	3440	901	885	713	581	920	258	199	187
8	220	158	2110	2670	1230	829	678	569	842	250	210	175
9	219	158	7740	3340	1150	778	660	564	787	211	219	174
10	216	158	6930	2770	1180	734	819	558	713	214	217	170
11	218	158	4100	2420	2550	696	711	552	493	218	222	173
12	220	158	2160	2120	1760	662	654	565	445	214	213	172
13	203	160	1200	3690	1460	669	594	488	415	205	205	174
14	189	161	823	8810	1310	647	619	431	394	207	207	181
15	186	161	621	7370	1200	638	782	438	476	202	208	190
16	188	161	492	5500	1120	622	780	434	489	200	218	188
17	188	101	430	3700	2270	613	713	428	475	200	212	187
18	182	133	418	3000	4890	1540	1290	414	461	198	205	185
19	192	156	359	2580	10000	1670	1520	429	308	211	208	179
20	192	164	345	19400	8390	1250	1160	451	275	216	215	184
21	200	163	380	15000	5640	1060	909	444	261	217	203	193
22	190	175	335	8850	5230	936	769	425	249	205	186	188
23	189	184	306	4830	8060	848	718	414	231	191	199	181
24	179	185	287	5690	6750	1050	813	414	226	186	206	178
25	175	178	277	5120	5500	2160	818	386	226	170	208	186
26	173	173	265	4260	4060	1420	722	901	304	190	205	190
27	162	171	255	3500	2010	1210	755	1090	345	200	202	187
28	154	171	638	1750	1640	1080	788	928	354	200	203	190
29	183	171	2300	1530	---	1040	760	677	299	203	203	189
30	208	171	2230	1390	---	904	741	614	279	209	210	187
31	187	---	10300	1270	---	828	---	1140	---	210	217	---
TOTAL	6197	4915	48967	157300	83191	31828	24519	17455	16159	6711	6422	5505
MEAN	200	164	1580	5074	2971	1027	817	563	539	216	207	183
MAX	239	186	10300	19400	10000	2160	1520	1140	1080	267	222	213
MIN	154	101	170	1270	661	613	594	386	226	170	186	170
AC-FT	12290	9750	97130	312000	165000	63130	48630	34620	32050	13310	12740	10920

11463000 RUSSIAN RIVER NEAR CLOVERDALE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	250	616	1610	2548	2444	1757	926	373	236	213	222	216
MAX	659	2636	6398	8162	9387	7015	3708	1156	539	312	359	385
(WY)	1963	1984	1965	1970	1958	1983	1982	1983	1993	1961	1961	1974
MIN	34.5	114	97.8	53.7	44.5	97.2	47.3	80.7	99.9	117	118	72.5
(WY)	1978	1992	1991	1977	1977	1977	1977	1977	1988	1988	1988	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1951 - 1993	
ANNUAL TOTAL	242423		409169			
ANNUAL MEAN	662		1121		945	
HIGHEST ANNUAL MEAN					2144	1983
LOWEST ANNUAL MEAN					99.2	1977
HIGHEST DAILY MEAN	10300	Dec 31	19400	Jan 20	42800	Dec 22 1964
LOWEST DAILY MEAN	101	Nov 17	101	Nov 17	12	Apr 22 1977
ANNUAL SEVEN-DAY MINIMUM	148	Nov 13	148	Nov 13	16	Apr 16 1977
INSTANTANEOUS PEAK FLOW			26900	Jan 21	55200	Dec 22 1964
INSTANTANEOUS PEAK STAGE			19.60	Jan 21	31.60	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	480800		811600		684600	
10 PERCENT EXCEEDS	1290		2620		2240	
50 PERCENT EXCEEDS	215		414		266	
90 PERCENT EXCEEDS	175		175		156	

11463170 BIG SULPHUR CREEK AT GEYSERS RESORT, NEAR CLOVERDALE, CA

LOCATION.--Lat 38°47'52", long 122°48'05", in NW 1/4 NW 1/4 sec.19, T.11 N., R.8 W., Sonome County, Bydrologic Unit 18010110, on left bank 400 ft downstream from unnamed tributary and 12 mi east of Clovardale.

DRAINAGE AREA.--13.1 mi^2.

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,430 ft above sea level, from topographic map.

REMARKS.--Records good. Diversion for industrial use 150 ft upstream from station when flows are above 10 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,700 ft^3/s, Feb. 17, 1986, gage height, 8.98 ft, from rating curve extended above 1,200 ft^3/s on basis of culvert computation of peak flow; minimum daily, 0.08 ft^3/s, Aug. 31, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discherges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 10	1200	1,990	6.99	Jan. 20	1030	*3,200	*7.79
Dec. 31	2345	2,830	7.57	Feb. 19	1815	1,360	6.43

Minimum daily, 1.0 ft^3/s, Oct. 10-15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	22	1.9	1020	22	47	35	16	27	8.7	3.6	2.1
2	1.9	11	28	314	21	38	30	15	23	8.4	3.5	2.1
3	1.9	5.3	21	159	19	38	27	15	20	8.1	3.2	2.1
4	1.3	4.0	8.1	74	17	27	27	14	38	8.0	2.9	2.0
5	1.2	3.3	5.5	54	18	22	25	15	30	7.9	2.9	1.9
6	1.2	3.0	204	130	16	18	24	15	25	7.2	3.0	1.8
7	1.2	3.0	62	361	21	16	22	14	22	7.1	3.0	1.9
8	1.1	3.0	495	225	91	15	30	14	21	7.1	2.8	2.0
9	1.1	3.0	425	145	61	15	24	13	19	6.7	2.8	1.9
10	1.0	3.0	963	107	87	15	22	13	18	6.3	2.7	1.9
11	1.0	3.0	291	75	161	17	20	11	16	5.9	2.7	1.9
12	1.0	3.0	119	80	88	16	20	11	16	6.3	2.8	1.9
13	1.0	2.6	68	479	58	15	19	10	15	5.9	2.8	1.8
14	1.0	2.3	43	e637	46	14	18	10	14	5.8	2.6	1.7
15	1.0	2.3	29	642	36	15	18	10	14	5.7	2.5	1.6
16	1.1	2.1	23	e560	30	18	16	10	13	5.7	2.5	1.7
17	1.2	2.1	23	380	235	160	213	9.4	12	5.7	2.6	1.7
18	1.2	2.0	22	275	391	148	93	9.3	12	5.5	2.5	1.7
19	1.1	2.1	21	244	771	61	56	12	11	5.3	2.4	1.6
20	2.9	2.3	22	1980	484	41	40	11	11	5.2	2.5	1.7
21	5.9	2.3	20	1010	278	30	30	9.7	10	5.0	2.5	1.7
22	1.8	2.8	20	595	259	24	26	9.3	9.7	4.6	2.5	1.7
23	1.4	2.4	19	277	532	84	28	9.1	8.9	4.5	2.4	1.7
24	1.3	2.3	18	172	277	105	26	11	8.5	4.6	2.5	1.7
25	1.3	2.3	17	116	171	54	22	11	8.9	4.3	2.3	1.7
26	1.2	2.3	16	87	116	41	21	57	8.6	4.3	2.3	1.7
27	1.2	2.1	16	65	82	37	20	53	7.8	3.9	2.3	2.0
28	1.2	2.1	115	50	62	33	18	26	7.7	3.6	2.3	1.8
29	38	2.1	157	42	---	26	18	19	7.5	3.6	2.3	1.6
30	26	2.1	74	34	---	21	16	19	7.5	3.6	2.1	1.7
31	17	---	1340	28	---	33	---	39	---	3.6	2.1	---
TOTAL	122.1	107.2	4686.5	10417	4450	1244	1004	510.8	462.1	178.1	81.9	54.3
MEAN	3.94	3.57	151	336	159	40.1	33.5	16.5	15.4	5.75	2.64	1.81
MAX	38	22	1340	1980	771	160	213	57	38	8.7	3.6	2.1
MIN	1.0	2.0	1.9	28	16	14	16	9.1	7.5	3.6	2.1	1.6
AC-FT	242	213	9300	20660	8830	2470	1990	1010	917	353	162	108

e Estimated.

11463170 BIG SULPHUR CREEK AT GEYSERS RESORT, NEAR CLOVERDALE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.06	33.1	74.7	79.5	116	107	31.7	16.0	5.96	2.45	1.29	1.34
MAX	20.9	146	243	336	571	297	162	81.6	17.1	5.75	2.64	2.90
(WY)	1990	1984	1984	1993	1986	1983	1982	1990	1990	1993	1993	1985
MIN	.74	1.22	1.81	2.52	7.34	8.57	8.44	4.79	2.62	.86	.70	.65
(WY)	1989	1981	1991	1991	1989	1988	1990	1986	1987	1984	1988	1988

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1981 - 1993	
ANNUAL TOTAL	12451.47		23318.0			
ANNUAL MEAN	34.0		63.9		39.0	
HIGHEST ANNUAL MEAN					86.8	1983
LOWEST ANNUAL MEAN					17.4	1985
HIGHEST DAILY MEAN	1340	Dec 31	1980	Jan 20	3920	Feb 17 1986
LOWEST DAILY MEAN	.81	Aug 30	1.0	Oct 10	.08	Aug 31 1983
ANNUAL SEVEN-DAY MINIMUM	.86	Aug 29	1.0	Oct 9	.24	Oct 13 1983
INSTANTANEOUS PEAK FLOW			3200	Jan 20	5700	Feb 17 1986
INSTANTANEOUS PEAK STAGE			7.79	Jan 20	8.98	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	24700		46250		28270	
10 PERCENT EXCEEDS	56		152		85	
50 PERCENT EXCEEDS	5.1		13		5.7	
90 PERCENT EXCEEDS	1.0		1.7		.92	

11463200 BIG SULPHUR CREEK NEAR CLOVERDALE, CA

LOCATION.--Let 38°49'34", long 122°59'45", in Rincon de Maselecon Grant, Sonoma County, Hydrologic Unit 18010110, on right bank 900 ft downstream from unnamed tributery, 1.0 mi upstream of Russian River and 1.8 mi northeast of Cloverdale.
DRAINAGE AREA.--85.5 mi^2.
PERIOD OF RECORD.--July 1957 to September 1972. October 1989 to current year (since October 1989, low flow only).
REVISED RECORDS.--WSP 1929: 1958-60.
GAGE.--Water-stage recorder. Elevation of gage is 350 ft above sea level, from topographic map. Prior to September 1972, at site 0.8 mi upstream at different datum.
REMARKS.--Records good. Diversions for irrigation and geothermal recharge upstream from station. No flow computed above 200 ft^3/s.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (water years 1958-72), 15,700 ft^3/s, Dec. 22, 1964, gage height, 15.08 ft, site and datum then in use, from rating curve extended above 5,700 ft^3/s on basis of slope-area measurement at gage height 16.8 ft; minimum daily, 1.3 ft^3/s, Sept. 27, 1991.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 16.8 ft from floodmarks, site and datum then in use, discharge, 20,000 ft^3/s, by slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	51	5.3	---	77	---	---	85	178	33	13	7.0
2	5.0	35	12	---	70	---	191	82	139	32	12	6.8
3	6.4	20	142	---	63	---	177	86	119	31	12	6.3
4	6.2	14	37	---	57	---	170	86	169	30	12	6.4
5	4.7	11	21	174	60	---	161	82	182	29	12	6.0
6	4.0	9.7	---	---	53	198	154	79	147	28	12	5.7
7	3.1	8.4	---	---	53	186	148	76	124	27	11	5.7
8	2.8	7.5	---	---	---	175	150	73	105	25	11	5.6
9	2.9	7.1	---	---	147	166	164	72	95.0	25	11	5.4
10	2.8	6.8	---	---	168	159	143	69	86.4	24	11	5.6
11	2.7	6.4	---	---	---	154	135	64	80.9	23	11	5.7
12	2.6	6.0	---	---	194	148	129	64	75.6	22	11	5.7
13	2.5	6.0	---	---	136	143	124	63	71.7	22	11	5.7
14	2.6	5.8	160	---	111	140	120	62	66.7	21	10	5.7
15	2.5	5.7	118	---	94	135	116	61	64.3	20	10	5.7
16	2.6	5.5	91	---	83	135	110	58	60.6	20	9.9	6.2
17	2.7	5.5	85	---	---	---	---	55	57.1	20	9.5	6.5
18	2.7	5.5	74	---	---	---	---	54	54.9	20	9.0	6.3
19	2.5	5.9	65	---	---	---	---	66	50.5	19	8.9	6.3
20	3.1	6.5	64	---	---	---	166	72	49.5	19	9.2	6.0
21	21	6.3	61	---	---	---	144	62	48.4	19	9.3	5.5
22	11	9.2	53	---	---	186	133	56	46.4	18	8.7	5.5
23	6.2	9.8	47	---	---	---	133	53	44.4	17	8.3	5.5
24	4.8	7.9	42	---	---	---	147	56	41.5	17	7.8	5.5
25	4.1	6.9	38	---	---	---	122	68	38	16	7.6	5.4
26	3.9	6.4	34	---	---	---	113	161	38	16	7.2	5.5
27	3.9	6.2	33	187	---	---	106	---	35	16	7.2	5.5
28	3.9	5.9	---	151	---	---	100	173	34	16	6.8	5.2
29	76	5.5	---	123	---	188	95	121	34	16	6.3	5.2
30	86	5.5	---	104	---	173	91	107	33	15	6.3	4.9
31	39	---	---	89	---	181	---	---	---	14	6.8	---
TOTAL	327.5	298.9	---	---	---	---	---	---	2368.9	670	298.8	174.0
MEAN	10.6	9.96	---	---	---	---	---	---	79.0	21.6	9.64	5.80
MAX	86	51	---	---	---	---	---	---	182	33	13	7.0
MIN	2.5	5.5	---	---	---	---	---	---	33	14	6.3	4.9
AC-FT	650	593	---	---	---	---	---	---	4700	1330	593	345

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1972, BY WATER YEAR (WY)

MEAN	38.2	99.8	387	611	564	286	224	60.0	26.3	10.7	6.26	8.21
MAX	290	283	1228	1972	1962	747	726	175	67.0	22.0	11.9	51.4
(WY)	1963	1967	1965	1970	1958	1958	1958	1963	1967	1963	1967	1957
MIN	4.08	4.15	6.82	94.0	81.7	66.4	37.9	21.9	11.0	4.23	3.13	2.79
(WY)	1967	1960	1960	1962	1964	1964	1964	1959	1959	1959	1959	1970

SUMMARY STATISTICS	WATER YEARS 1957 - 1972	
ANNUAL MEAN	192	
HIGHEST ANNUAL MEAN	376	1958
LOWEST ANNUAL MEAN	53.1	1972
HIGHEST DAILY MEAN	10400	Dec 22 1964
LOWEST DAILY MEAN	1.8	Oct 20 1964
ANNUAL SEVEN-DAY MINIMUM	2.0	Oct 15 1964
INSTANTANEOUS PEAK FLOW	15700	Dec 22 1964
INSTANTANEOUS PEAK STAGE	15.08	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	138800	
10 PERCENT EXCEEDS	395	
50 PERCENT EXCEEDS	33	
90 PERCENT EXCEEDS	4.2	

11463980 RUSSIAN RIVER AT DIGGER BEND, NEAR HEALDSBURG, CA

LOCATION.--Lat 38°37'59", long 122°51'16", in Sotoyome Grant, Sonoma County, Hydrologic Unit 18010110, on right bank, 1,800 ft downstream from unnamed tributary and 1.6 mi northeast of Healdsburg.

DRAINAGE AREA.--791 mi^2.

PERIOD OF RECORD.--October 1988 to current year (low flow only). Records for October 1985 to September 1988 are in the files of the U.S. Geological Survey.

GAGE.--Water-stage recorder. Elevation of gage is 100 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No records computed above 300 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181	250	177	---	---	---	---	---	---	---	212	206
2	193	247	198	---	---	---	---	---	---	---	216	205
3	209	224	296	---	---	---	---	---	---	---	210	191
4	214	205	---	---	---	---	---	---	---	---	211	179
5	209	196	265	---	---	---	---	---	---	---	215	176
6	209	189	---	---	---	---	---	---	---	---	218	172
7	204	182	---	---	---	---	---	---	---	298	218	183
8	200	178	---	---	---	---	---	---	---	---	212	185
9	200	176	---	---	---	---	---	---	---	274	215	168
10	197	173	---	---	---	---	---	---	---	259	220	164
11	193	173	---	---	---	---	---	---	---	259	223	159
12	196	173	---	---	---	---	---	---	---	257	225	160
13	195	172	---	---	---	---	---	---	---	247	217	162
14	185	177	---	---	---	---	---	---	---	237	209	161
15	180	179	---	---	---	---	---	---	---	235	209	165
16	180	180	---	---	---	---	---	---	---	234	206	173
17	179	179	---	---	---	---	---	---	---	233	207	174
18	175	151	---	---	---	---	---	---	---	231	211	171
19	173	157	---	---	---	---	---	---	---	235	212	169
20	183	171	---	---	---	---	---	---	---	246	212	165
21	205	177	---	---	---	---	---	---	---	252	211	168
22	202	184	---	---	---	---	---	---	---	251	203	173
23	192	190	---	---	---	---	---	---	---	235	194	174
24	187	195	---	---	---	---	---	---	---	224	193	170
25	180	195	---	---	---	---	---	---	---	214	197	169
26	177	191	---	---	---	---	---	---	---	207	201	173
27	175	188	---	---	---	---	---	---	---	217	197	171
28	168	185	---	---	---	---	---	---	---	221	192	168
29	201	185	---	---	---	---	---	---	---	215	193	168
30	255	182	---	---	---	---	---	---	---	214	192	169
31	269	---	---	---	---	---	---	---	---	214	200	---
TOTAL	6066	5604	---	---	---	---	---	---	---	---	6451	5191
MEAN	196	187	---	---	---	---	---	---	---	---	208	173
MAX	269	250	---	---	---	---	---	---	---	---	225	206
MIN	168	151	---	---	---	---	---	---	---	---	192	159
AC-FT	12030	11120	---	---	---	---	---	---	---	---	12800	10300

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA

LOCATION.--Lat 38°36'48", long 122°50'07", in Sotoyome Grant, Sonome County, Hydrologic Unit 18010110, on left bank 2 mi east of Healdsburg and 3.5 mi upstream from Dry Creek.

DRAINAGE AREA.--793 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current yeer. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 981: 1942. WSP 1929: Dreinege eree.

GAGE.--Water-stage recorder. Datum of gage is 77.01 ft above sea level.

REMARKS.--Records good. Several diversions for irrigation of about 17,800 acres upstream from stetion. Flow also affected by diversion into basin (see REMARKS for East Fork Russien River stetions) and since November 1958 by storage in Lake Mendocino 63 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,300 ft^3/s, Dec. 23, 1964, gage height, 27.00 ft; maximum gage height, 30.0 ft, Feb. 28, 1940; minimum daily discharge, 12 ft^3/s, June 14, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached e stege of 30.8 ft, from floodmerks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43,600 ft^3/s, Jan. 20, gage height, 19.30 ft.; minimum daily, 133 ft^3/s, July 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	183	236	168	28300	1980	2750	1580	823	1290	345	200	e190
2	193	237	187	9700	1720	2230	1480	735	1070	325	197	193
3	210	213	273	6900	1480	2060	1340	707	953	309	177	181
4	217	196	305	5800	1340	1840	1260	709	915	305	e190	164
5	213	185	255	4660	1280	1600	1220	692	1260	306	e200	164
6	213	178	352	3120	1360	1440	1140	693	1190	317	e192	173
7	207	173	2300	6990	1410	1310	1070	732	1110	305	e190	e180
8	204	168	1570	5470	2160	1250	1010	733	991	309	e198	e177
9	204	164	10600	4240	2380	1240	1120	719	918	269	e200	164
10	201	164	9380	4850	2000	1150	1050	712	861	228	e210	156
11	198	162	8820	3820	4860	1080	981	706	745	233	e214	153
12	201	162	3950	3140	3510	1020	910	710	633	231	e208	155
13	201	161	2250	6380	2700	978	855	688	594	209	e200	156
14	192	164	1500	11900	2330	950	926	589	550	200	e200	156
15	188	164	1120	11100	2070	938	986	587	545	202	e205	162
16	186	164	881	10500	1890	911	973	580	599	206	e205	171
17	184	163	755	6690	2840	2410	1370	570	e596	211	e205	168
18	184	139	663	5500	8950	3070	2510	559	e521	215	e200	167
19	182	140	587	4160	14800	2270	1860	543	e481	224	e195	215
20	194	153	523	27200	16600	1760	1480	565	e414	237	e188	166
21	209	160	514	30500	9980	1510	1220	570	e388	227	e190	170
22	205	168	484	19100	8870	1360	1070	552	e369	225	e192	175
23	194	172	442	9540	13600	1360	1000	535	376	195	e188	172
24	189	178	405	8890	11400	3250	1150	534	341	168	e182	169
25	181	177	376	7760	8630	2450	1080	548	373	155	e180	168
26	178	173	354	6630	7150	1960	973	627	e357	133	e190	174
27	176	172	335	5710	4160	1740	970	1440	e413	187	e188	173
28	171	170	680	3470	3240	1730	984	1190	450	209	e182	171
29	205	168	2650	2720	---	1510	949	878	462	200	e182	172
30	249	168	3400	2390	---	1370	915	706	400	202	e186	172
31	257	---	9540	2140	---	1280	---	992	---	205	e190	---
TOTAL	6169	5192	65619	269270	144690	51777	35432	21924	20165	7292	6024	5127
MEAN	199	173	2117	8686	5167	1670	1181	707	672	235	194	171
MAX	257	237	10600	30500	16600	3250	2510	1440	1290	345	214	215
MIN	171	139	168	2140	1280	911	855	534	341	133	177	153
AC-FT	12240	10300	130200	534100	287000	102700	70280	43490	40000	14460	11950	10170

e Estimated.

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	281	818	2481	3875	3856	2736	1480	537	260	186	187	191
MAX	1605	5293	8945	13670	14650	11810	6592	1638	672	300	331	360
(WY)	1958	1974	1956	1970	1986	1983	1982	1983	1993	1961	1974	1974
MIN	33.7	122	111	90.9	58.7	146	55.7	85.1	81.3	70.5	82.8	67.4
(WY)	1978	1992	1991	1977	1977	1977	1977	1977	1977	1947	1947	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1940 - 1993	
ANNUAL TOTAL	325074		638681			
ANNUAL MEAN	888		1750		1397	
HIGHEST ANNUAL MEAN					3277	1983
LOWEST ANNUAL MEAN					101	1977
HIGHEST DAILY MEAN	11800	Feb 12	30500	Jan 21	62700	Dec 23 1964
LOWEST DAILY MEAN	139	Nov 18	133	Jul 26	12	Jun 14 1988
ANNUAL SEVEN-DAY MINIMUM	155	Nov 15	155	Nov 15	21	Apr 20 1977
INSTANTANEOUS PEAK FLOW			43600	Jan 20	71300	Dec 23 1964
INSTANTANEOUS PEAK STAGE			19.30	Jan 20	30.00	Feb 28 1940
ANNUAL RUNOFF (AC-FT)	644800		1267000		1012000	
10 PERCENT EXCEEDS	1870		4410		3310	
50 PERCENT EXCEEDS	228		543		312	
90 PERCENT EXCEEDS	170		170		140	

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.
CHEMICAL DATA: Water years 1951-66, 1980.
WATER TEMPERATURE: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1965 to current year.

INSTRUMENTATION.--Tempereture recorder since October 1965 providea hourly recordinga.

REMARKS.--Tempereture during summer months effected by recreation dams above and below gage.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 28.0°C, at times in some yeers; minimum recorded, 3.0°C, Dec. 23, 1990.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 26.5°C, June 26 and Aug. 1-3; minimum recorded, 7.0°C, Dec. 30, Jan. 3, 4, 11.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.5	20.0	19.0	17.0	11.5	10.0	9.5	9.0	11.0	9.0	12.0	10.0
2	20.5	18.0	19.0	17.5	11.5	10.5	9.0	8.0	10.5	9.0	13.5	11.0
3	21.5	17.5	18.5	16.5	12.0	10.5	8.0	7.0	11.0	10.5	14.0	12.0
4	21.5	17.5	18.0	16.0	11.0	10.0	8.0	7.0	12.5	11.0	13.5	11.5
5	22.0	17.5	18.5	16.0	10.0	9.0	9.0	8.0	12.5	12.0	14.0	11.5
6	21.5	17.5	18.5	16.0	11.0	10.0	9.0	8.5	12.5	11.5	14.5	12.0
7	21.5	17.5	18.0	15.5	10.0	9.0	9.0	8.5	12.5	11.5	15.0	13.0
8	21.5	17.0	16.5	15.0	11.0	8.5	9.5	9.0	13.0	12.0	15.0	13.5
9	21.5	17.5	15.0	13.0	11.5	10.5	9.0	8.5	12.5	11.5	15.0	13.5
10	21.5	17.5	14.5	12.0	12.5	11.5	8.5	7.5	12.0	11.0	15.0	13.5
11	21.5	17.5	14.0	11.5	11.5	10.5	8.5	7.0	11.0	10.0	15.5	13.5
12	21.0	17.5	14.0	11.5	10.5	9.0	8.0	7.5	11.0	9.5	16.0	14.5
13	21.0	18.0	14.5	11.5	10.0	8.5	9.0	7.5	11.0	9.0	16.0	14.5
14	19.5	17.5	14.5	12.0	10.5	9.0	9.5	9.0	11.0	9.0	16.0	14.5
15	19.5	17.0	14.0	12.0	10.5	9.0	9.0	8.5	11.0	9.0	15.5	14.5
16	19.5	16.5	15.0	13.0	10.5	9.0	10.0	9.0	10.5	9.0	15.0	14.0
17	19.0	16.0	16.0	14.0	10.5	10.0	9.5	9.0	10.0	9.0	14.5	13.5
18	19.5	16.5	14.5	12.5	10.0	8.5	10.0	9.0	10.5	10.0	15.5	13.5
19	20.0	17.0	14.5	13.0	9.5	8.0	10.0	9.0	11.0	10.0	15.0	13.5
20	19.5	18.5	13.0	11.5	10.0	9.5	11.0	9.5	10.0	9.0	15.5	13.0
21	20.0	17.5	13.0	11.5	10.5	10.0	11.0	10.0	10.0	9.0	16.0	13.5
22	20.0	17.0	14.0	12.5	10.0	9.0	11.0	10.5	10.0	9.5	16.0	14.0
23	19.5	16.5	13.0	11.0	9.5	9.0	10.5	9.5	10.0	9.5	16.0	14.5
24	19.5	16.5	12.0	10.5	9.5	9.0	10.0	8.5	10.0	9.0	14.5	13.0
25	18.5	17.5	13.0	11.5	9.5	9.0	10.0	9.0	9.5	8.5	14.0	12.0
26	19.0	16.5	13.5	12.0	9.0	8.5	10.0	9.0	10.0	8.5	14.0	12.5
27	19.0	16.5	14.0	13.0	9.0	8.5	10.0	9.0	11.0	9.0	13.5	12.0
28	18.0	17.0	13.0	11.5	9.5	9.0	11.5	9.5	12.0	9.5	14.0	11.5
29	18.0	16.5	12.0	10.5	9.0	7.5	11.5	10.5	---	---	15.0	12.0
30	18.0	17.0	12.0	9.5	8.0	7.0	11.5	10.0	---	---	15.5	13.0
31	17.5	16.5	---	---	9.5	7.5	11.0	9.5	---	---	15.0	13.0
MONTH	22.0	16.0	19.0	9.5	12.5	7.0	11.5	7.0	13.0	8.5	16.0	10.0

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.5	12.0	19.0	16.5	18.0	16.5	25.5	22.0	26.5	24.5	23.5	21.5
2	14.5	11.5	20.0	17.5	19.0	16.5	25.0	22.0	26.5	25.0	24.0	22.5
3	14.5	13.0	18.5	17.0	18.5	16.5	24.5	21.0	26.5	24.0	24.0	23.0
4	15.0	13.5	19.0	15.5	18.0	15.0	25.5	21.5	25.0	23.0	23.5	22.5
5	15.0	13.0	18.5	16.5	17.0	14.5	25.0	22.0	24.5	23.0	23.0	22.0
6	15.0	13.0	19.0	17.0	16.5	15.0	25.0	22.0	24.5	23.0	22.5	21.5
7	16.0	13.0	18.0	15.5	18.5	15.0	24.5	21.5	24.5	22.5	23.0	21.0
8	15.5	14.0	18.5	15.5	20.0	17.0	24.0	21.0	23.5	21.5	23.5	20.5
9	15.0	13.0	20.0	16.5	20.5	17.5	23.5	21.0	23.5	21.5	23.5	20.0
10	15.5	13.5	20.5	18.0	21.0	18.5	23.5	20.5	23.5	21.5	23.5	20.5
11	15.0	13.0	18.5	16.5	20.5	17.5	24.5	21.0	24.0	22.0	23.5	20.0
12	15.5	13.0	17.0	15.5	21.5	18.0	25.0	21.5	24.0	22.0	23.0	20.0
13	16.0	13.5	17.0	15.0	22.5	19.0	25.0	22.0	24.0	22.5	22.5	19.5
14	16.5	14.0	19.0	15.5	23.0	20.0	24.5	21.5	24.0	22.0	20.5	18.5
15	17.0	15.0	20.0	16.5	23.0	20.0	23.5	20.5	23.5	22.0	21.0	18.5
16	16.0	14.5	21.0	17.5	23.0	20.0	24.0	21.0	23.5	21.5	21.0	18.5
17	15.0	13.5	20.0	18.0	24.0	20.5	24.5	21.5	24.0	22.0	21.0	18.5
18	15.5	13.0	18.5	17.0	25.0	21.5	24.5	22.0	24.0	22.5	21.0	18.0
19	15.5	12.5	19.0	17.5	25.5	21.5	24.5	22.0	24.0	22.5	21.0	17.5
20	15.5	13.5	21.0	18.0	24.5	20.5	24.0	21.5	23.5	21.5	22.5	17.5
21	16.0	13.5	20.5	18.0	23.5	19.5	23.5	21.0	24.0	22.0	22.0	18.0
22	16.5	14.0	21.5	18.0	22.5	18.0	24.5	21.0	25.0	23.0	21.5	17.5
23	15.5	14.0	20.5	18.0	23.5	18.0	25.5	22.0	25.0	23.0	22.0	17.0
24	16.0	13.5	18.5	16.5	25.0	19.0	25.5	23.0	25.0	23.5	22.0	16.5
25	16.5	14.5	18.5	16.5	26.0	20.5	25.5	23.0	24.5	22.5	22.0	16.5
26	16.5	14.5	18.0	16.5	26.5	22.5	24.5	22.5	24.0	22.0	22.0	16.5
27	17.0	14.5	17.5	15.5	26.0	22.5	24.0	22.0	24.0	22.5	22.5	17.0
28	18.0	15.0	18.0	16.0	24.0	21.5	23.5	21.5	24.5	23.0	22.0	17.5
29	18.5	16.0	18.0	16.0	24.0	21.0	24.0	21.5	24.0	22.5	22.0	18.0
30	18.5	16.5	18.0	17.0	25.0	21.5	25.0	22.0	23.5	22.0	22.0	17.5
31	---	---	18.5	16.5	---	---	26.0	23.0	22.5	21.0	---	---
MONTH	18.5	11.5	21.5	15.0	26.5	14.5	26.0	20.5	26.5	21.0	24.0	16.5

11465000 DRY CREEK BELOW WARM SPRINGS DAM, NEAR GEYSERVILLE, CA

LOCATION.--Lat 38°43'11", long 122°59'58", in Tzabaco Grant, Sonoma County, Hydrologic Unit 18010110, on right bank of outlet channel, 500 ft downstream from Warm Springs Dam, 500 ft upstream from county road bridge, and 5.0 mi west of Geyserville.

DRAINAGE AREA.--131 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to September 1942 (published as "Dry Creek near Healdsburg"), October 1981 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 188.21 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Sept. 30, 1942, nonrecording gage at site 500 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow affected by storage in Lake Sonoma, capecity, 380,600 acre-ft, beginning October 1983.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,500 ft^3/s, Feb. 28, 1940, gage height, 16.9 ft, datum then in use; no flow Oct. 1 to Dec. 8, 1939. Maximum discharge since regulation by Lake Sonoma, 4,220 ft^3/s Jan. 23, 1993, gage height, 9.71 ft; minimum daily, 6.3 ft^3/s July 10, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 21.8 ft from floodmarks, discharge about 25,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,220 ft^3/s, Jan. 23, gage height, 9.71 ft; minimum daily, 26 ft^3/s, May 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	113	110	92	1540	2470	184	42	105	114	129	128
2	92	111	111	79	1030	1070	183	43	104	114	135	128
3	97	111	111	79	508	180	183	36	104	114	136	128
4	101	113	117	125	167	180	184	29	98	114	135	129
5	105	114	126	155	180	180	184	30	104	114	136	128
6	110	114	135	142	179	180	184	34	104	114	136	125
7	110	113	123	141	180	180	183	32	104	138	136	124
8	108	113	123	144	182	180	184	34	104	159	136	128
9	104	113	112	147	178	180	179	39	104	165	136	127
10	104	113	115	146	172	180	184	33	104	172	136	126
11	104	112	112	146	176	180	184	31	104	170	135	125
12	107	112	112	528	179	178	184	32	104	170	136	125
13	110	112	112	1540	179	178	184	34	98	169	136	110
14	110	111	111	1850	179	178	185	32	105	169	136	111
15	110	111	111	1860	179	116	185	33	105	170	133	100
16	111	111	111	1870	179	106	186	38	105	169	140	112
17	111	111	110	1870	185	107	186	31	103	169	141	117
18	105	110	110	1870	184	497	185	36	104	169	130	117
19	100	110	110	1890	188	777	180	33	103	163	130	117
20	103	110	110	767	182	861	526	33	105	150	130	116
21	100	109	110	116	1210	861	703	32	105	111	130	116
22	101	109	111	116	1990	433	422	39	106	118	130	116
23	101	109	111	1810	2530	181	178	41	102	119	130	108
24	101	109	111	2470	3420	425	178	26	106	119	130	96
25	101	108	111	2460	3910	759	157	27	107	119	129	97
26	100	108	110	2110	3140	426	102	165	107	120	130	96
27	101	109	110	2400	2480	187	59	166	107	123	131	64
28	101	110	112	2790	2470	185	31	176	119	128	130	47
29	95	110	111	3070	---	185	33	134	119	129	129	46
30	89	110	111	2690	---	175	35	109	111	126	129	46
31	90	---	122	2640	---	185	---	93	---	125	124	---
TOTAL	3188	3329	3522	38113	27276	12160	5915	1693	3160	4323	4120	3253
MEAN	103	111	114	1229	974	392	197	54.6	105	139	133	108
MAX	111	114	135	3070	3910	2470	703	176	119	172	141	129
MIN	89	108	110	79	167	106	31	26	98	111	124	46
AC-FT	6320	6600	6990	75600	54100	24120	11730	3360	6270	8570	8170	6450

11465000 DRY CREEK BELOW WARM SPRINGS DAM, NEAR GEYSERVILLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	67.6	175	239	264	183	272	100	72.9	101	118	104	82.8
MAX	104	524	1501	1229	974	1089	263	161	196	274	169	122
(WY)	1989	1984	1984	1993	1993	1986	1984	1984	1987	1987	1987	1988
MIN	7.70	50.8	49.8	49.3	73.3	25.0	23.0	26.1	25.1	27.0	42.0	39.0
(WY)	1984	1986	1986	1986	1988	1985	1985	1985	1985	1985	1985	1985

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1984 - 1993	
ANNUAL TOTAL	34823		110052			
ANNUAL MEAN	95.1		302		148	
HIGHEST ANNUAL MEAN					302	1993
LOWEST ANNUAL MEAN					46.0	1985
HIGHEST DAILY MEAN	135	Dec 6	3910	Feb 25	3910	Feb 25 1993
LOWEST DAILY MEAN	27	May 22	26	May 24	6.1	Oct 21 1983
ANNUAL SEVEN-DAY MINIMUM	28	May 22	33	May 4	6.3	Oct 18 1983
INSTANTANEOUS PEAK FLOW			4220	Jan 23	4220	Jan 23 1993
INSTANTANEOUS PEAK STAGE			9.71	Jan 23	9.71	Jan 23 1993
ANNUAL RUNOFF (AC-FT)	69070		218300		107500	
10 PERCENT EXCEEDS	117		515		178	
50 PERCENT EXCEEDS	105		119		93	
90 PERCENT EXCEEDS	71		90		32	

11465000 DRY CREEK BELOW WARM SPRINGS DAM, NEAR GEYSERVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURE: November 1981 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: November 1981 to current year.

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Water temperature is effected by reguletion from Warm Springs Dam. Interruptions in record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 27.0°C, several days in 1983; minimum recorded, 6.5°C, Jan. 20, 1982.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 16.5°C, May 9; minimum recorded, 9.5°C, several days in January.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.5	12.0	12.0	11.5	11.5	11.0	11.0	10.5	10.5	10.0	10.5	10.5
2	12.0	11.5	12.0	11.5	11.0	11.0	10.5	10.0	10.0	10.0	10.5	10.5
3	12.5	11.5	12.0	11.5	11.5	11.0	10.5	10.0	10.0	10.0	10.5	10.5
4	12.5	11.5	12.0	11.5	11.5	11.0	10.5	10.0	10.0	10.0	10.5	10.5
5	12.0	11.5	12.0	11.5	11.0	11.0	10.5	10.5	10.0	10.0	10.5	10.5
6	12.0	11.0	12.0	11.5	11.0	11.0	10.5	10.0	10.0	10.0	10.5	10.5
7	12.0	11.5	12.0	11.5	11.5	11.0	10.5	10.0	10.0	10.0	10.5	10.5
8	12.0	11.5	11.5	11.5	11.5	11.0	10.5	10.0	10.5	10.0	10.5	10.5
9	12.0	11.5	11.5	11.5	11.5	11.0	10.5	10.0	10.5	10.0	11.0	10.5
10	12.0	11.5	11.5	11.0	11.5	11.0	10.0	10.0	10.5	10.0	10.5	10.5
11	12.0	11.5	11.5	11.0	11.0	11.0	10.0	10.0	10.5	10.0	---	---
12	12.0	11.5	11.5	11.0	11.0	11.0	10.0	9.5	10.5	10.0	10.5	10.5
13	12.0	11.5	11.5	11.0	11.0	10.5	10.0	10.0	10.5	10.0	10.5	10.5
14	12.0	11.0	11.5	11.0	11.0	11.0	10.0	10.0	10.5	10.0	---	---
15	12.0	11.5	11.5	11.0	11.0	11.0	10.0	10.0	10.5	10.0	11.0	10.5
16	12.0	11.5	11.5	11.0	11.0	10.5	10.0	9.5	10.5	10.0	10.5	10.0
17	12.0	11.5	11.5	11.5	11.0	11.0	10.0	9.5	10.0	10.0	11.0	10.5
18	12.0	11.5	11.5	11.0	11.0	10.5	10.0	9.5	10.5	10.0	10.5	10.0
19	12.0	11.5	11.5	11.0	11.0	10.5	9.5	9.5	10.5	10.0	---	---
20	11.5	11.5	11.5	11.0	11.0	10.5	11.0	9.5	10.5	10.0	10.5	10.0
21	12.0	11.5	11.5	11.0	11.0	11.0	11.0	10.0	10.5	10.0	10.5	10.0
22	12.0	11.5	11.5	11.0	11.5	11.0	---	---	10.5	10.5	10.5	10.0
23	12.0	11.5	11.5	11.0	11.0	11.0	10.0	10.0	10.5	10.5	---	---
24	12.0	11.5	---	---	11.0	10.5	10.0	10.0	10.5	10.5	10.5	10.0
25	12.0	11.5	---	---	11.0	10.5	10.0	10.0	10.5	10.5	10.0	10.0
26	12.0	11.5	---	---	11.0	10.5	10.5	10.0	10.5	10.5	10.5	10.0
27	12.0	11.5	---	---	11.0	10.5	10.0	10.0	10.5	10.5	10.5	10.5
28	12.0	11.5	11.5	11.0	11.0	10.5	10.0	10.0	10.5	10.5	10.5	10.5
29	12.0	11.5	11.5	11.0	11.0	10.5	10.0	10.0	---	---	10.5	10.5
30	12.0	11.5	11.5	11.0	11.0	10.5	10.0	10.0	---	---	10.5	10.5
31	12.0	11.5	---	---	10.5	10.0	10.0	10.0	---	---	10.5	10.5
MONTH	12.5	11.0	---	---	11.5	10.0	---	---	10.5	10.0	---	---

11465000 DRY CREEK BELOW WARM SPRINGS DAM, NEAR GEYSERVILLE, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	10.5	15.0	12.0	---	---	---	---	15.0	12.0	14.5	13.0
2	10.5	10.5	13.5	12.0	---	---	---	---	13.5	12.0	15.0	13.0
3	10.5	10.5	15.0	11.0	---	---	---	---	13.5	12.0	14.5	13.0
4	10.5	10.0	15.0	11.5	---	---	---	---	13.5	12.0	14.5	13.0
5	10.5	10.0	15.0	11.5	---	---	---	---	13.5	12.5	14.5	13.0
6	10.5	10.0	14.5	11.5	---	---	---	---	14.0	12.5	14.5	13.0
7	10.5	10.0	15.0	11.5	---	---	---	---	13.5	12.0	15.0	12.5
8	10.5	10.0	15.5	11.5	---	---	---	---	13.5	12.0	15.0	13.0
9	10.5	10.0	16.5	12.0	---	---	---	---	14.0	12.0	15.0	13.0
10	10.5	10.0	13.5	12.0	---	---	12.0	11.5	14.5	12.5	14.5	13.0
11	10.5	10.0	13.0	11.0	---	---	12.0	11.5	14.5	12.5	15.0	13.5
12	---	---	13.0	11.0	---	---	12.0	11.5	14.0	12.5	15.0	13.0
13	10.5	10.0	---	---	---	---	12.5	11.5	14.0	12.5	15.5	13.0
14	10.5	10.0	14.0	11.0	---	---	12.5	11.5	14.0	12.5	14.0	13.0
15	10.5	10.0	15.0	11.5	---	---	12.5	11.5	14.5	12.5	15.0	13.0
16	10.5	10.0	14.0	12.0	---	---	12.0	11.5	13.5	12.0	15.0	13.0
17	10.5	10.0	13.0	11.5	---	---	12.0	11.5	15.0	12.5	15.0	13.5
18	10.5	10.0	15.0	11.5	---	---	12.5	11.5	14.5	12.5	15.0	13.0
19	10.5	10.0	---	---	---	---	12.5	11.5	15.0	12.5	15.0	13.0
20	10.5	10.0	15.5	11.5	---	---	12.5	11.5	15.0	12.5	15.5	13.5
21	10.0	10.0	16.0	11.5	---	---	13.0	12.0	15.0	12.5	15.0	13.5
22	11.0	10.0	11.5	11.5	---	---	13.5	12.0	15.5	12.5	15.0	13.0
23	10.5	10.0	---	---	---	---	13.5	12.0	15.0	13.0	15.5	13.5
24	10.5	10.0	---	---	---	---	13.5	12.0	15.0	13.0	16.0	13.0
25	10.5	10.0	---	---	---	---	13.0	11.5	14.5	12.5	15.5	13.5
26	14.5	10.5	---	---	---	---	13.0	11.5	14.5	12.5	15.5	13.5
27	15.5	11.5	---	---	---	---	13.0	12.0	14.5	12.5	15.5	13.5
28	16.0	11.5	---	---	---	---	13.0	12.0	14.5	12.5	15.5	13.0
29	16.0	12.0	---	---	---	---	14.0	12.0	14.5	12.5	15.0	13.0
30	15.0	11.5	---	---	---	---	14.5	12.0	14.5	12.5	15.0	13.0
31	---	---	---	---	---	---	14.5	12.0	14.5	12.5	---	---
MONTH	---	---	---	---	---	---	---	---	15.5	12.0	16.0	12.5

11465200 DRY CREEK NEAR GEYSERVILLE, CA

LOCATION.--Lat 38°41'55", long 122°57'25", in Tzabaco Grant, Sonome County, Hydrologic Unit 18010110, on left bank pier of bridge 0.3 mi downstream from Pena Creek, 3.0 mi downstream from Warm Springs Dam, and 3 mi west of Geyserville.

DRAINAGE AREA.--162 mi^2.

PERIOD OF RECORD.--October 1959 to current year.
CHEMICAL DATA: Water years 1971-81.
WATER TEMPERATURE: Water years 1964-86.
SEDIMENT DATA: Water years 1964-87.
TURBIDITY: Water years 1964-86.

REVISED RECORDS.--WDR CA-65-1: 1962(M), 1963(M).

GAGE.--Water-stage recorder. Datum of gage is 156.40 ft above sea level. Prior to Oct. 1, 1964, at datum 4.00 ft higher. Oct. 1, 1964, to Apr. 8, 1976, at datum 3.00 ft higher; Apr. 9, 1976, to Sept. 30, 1982, at datum 2.00 ft higher.

REMARKS.--Records poor. Small diversions upstream from station for irrigation of about 1,200 acres. Flow affected by storage in Lake Sonoma, 3.0 mi upstream, capacity 380,600 acre-ft, beginning October 1983.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft^3/s, Jan. 31, 1963, gage height, 20.50 ft, present datum; no flow at times. Maximum discharge since regulation by Lake Sonoma, 6,960 ft^3/s, gage height, 13.49 ft, Jan. 20, 1993; minimum daily, 19 ft^3/s, Oct. 18-25, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,960 ft^3/s, Jan. 20, gage height, 13.49 ft; minimum daily, 33 ft^3/s, May 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	110	110	1180	1990	2910	214	43	207	126	130	e132
2	91	112	116	402	1310	1480	209	42	205	125	136	e132
3	92	109	112	242	722	313	207	40	203	125	136	e133
4	98	112	116	222	217	271	206	40	202	125	136	e134
5	103	116	130	249	213	246	186	39	177	124	136	e134
6	112	114	257	349	201	239	188	41	167	124	136	e131
7	113	116	184	752	201	230	188	40	150	144	134	e131
8	112	114	341	492	314	220	183	36	148	178	136	e133
9	105	114	408	377	275	217	171	39	145	176	136	e133
10	104	113	721	331	291	212	173	37	139	176	136	e133
11	107	113	356	289	412	209	171	36	138	176	136	e133
12	111	112	206	574	339	204	169	37	136	175	136	e128
13	117	112	151	2270	310	203	166	38	135	174	136	101
14	118	113	131	2960	285	201	164	37	134	174	136	98
15	118	113	121	2870	266	146	162	35	134	173	e133	90
16	117	113	113	2740	251	143	159	36	132	172	e140	101
17	116	113	111	2510	571	262	241	33	132	174	e141	110
18	109	113	107	2430	1100	675	201	42	130	174	e130	109
19	99	113	104	e2900	1670	963	178	44	126	174	e130	109
20	106	113	103	3750	1140	1080	438	43	129	151	e130	110
21	104	114	101	1540	1670	1070	740	41	128	120	e130	111
22	103	115	99	1090	2520	399	487	45	127	120	e130	111
23	103	113	98	2160	3250	249	160	47	127	120	e130	102
24	102	111	97	2910	4030	629	157	41	127	120	e130	81
25	102	109	95	2850	4460	910	141	40	126	120	e130	80
26	102	113	93	2490	3660	362	112	593	127	120	e131	81
27	103	113	92	2760	2900	234	91	1140	126	122	e132	60
28	104	108	152	3010	2900	220	57	424	126	126	e132	42
29	106	112	299	3320	---	212	44	215	122	132	e132	41
30	91	110	220	3010	---	202	42	208	126	126	e132	41
31	84	---	1550	3030	---	219	---	218	---	126	e128	---
TOTAL	3263	3376	6894	56059	37468	15130	6005	3790	4331	4492	4137	3165
MEAN	105	113	222	1808	1338	488	200	122	144	145	133	105
MAX	118	116	1550	3750	4460	2910	740	1140	207	178	141	134
MIN	84	108	92	222	201	143	42	33	122	120	128	41
AC-FT	6470	6700	13670	111200	74320	30010	11910	7520	8590	8910	8210	6280

e Estimated.

11465200 DRY CREEK NEAR GEYSERVILLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1983, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	22.5	240	610	1178	959	666	345	80.3	23.3	6.01	1.70	1.35
MAX	323	1619	2035	3930	2038	3095	1499	369	76.0	20.9	8.91	8.61
(WY)	1963	1974	1965	1970	1983	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.54	4.31	22.7	27.1	34.1	9.58	5.64	.25	.000	.000	.000
(WY)	1961	1981	1977	1976	1977	1977	1977	1977	1977	1977	1972	1972

SUMMARY STATISTICS	WATER YEARS 1960 - 1983	
ANNUAL MEAN	342	
HIGHEST ANNUAL MEAN	790	1983
LOWEST ANNUAL MEAN	8.81	1977
HIGHEST DAILY MEAN	19400	Jan 16 1974
LOWEST DAILY MEAN	.00	Sep 17 1960
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 17 1960
INSTANTANEOUS PEAK FLOW	32400	Jan 31 1963
INSTANTANEOUS PEAK STAGE	20.50	Jan 31 1963
ANNUAL RUNOFF (AC-FT)	247800	
10 PERCENT EXCEEDS	868	
50 PERCENT EXCEEDS	32	
90 PERCENT EXCEEDS	.08	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	79.8	143	137	378	383	471	104	82.6	122	143	120	92.8
MAX	107	459	232	1808	1338	1455	200	122	199	296	180	128
(WY)	1989	1987	1988	1993	1993	1986	1993	1993	1987	1987	1987	1988
MIN	42.2	60.4	88.2	83.0	85.4	86.0	38.5	36.6	93.5	96.9	96.1	44.1
(WY)	1991	1986	1991	1991	1991	1988	1990	1991	1989	1990	1990	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1986 - 1993	
ANNUAL TOTAL	47447		148110			
ANNUAL MEAN	130		406		187	
HIGHEST ANNUAL MEAN					406	1993
LOWEST ANNUAL MEAN					90.5	1990
HIGHEST DAILY MEAN	1550	Dec 31	4460	Feb 25	4460	Feb 25 1993
LOWEST DAILY MEAN	27	May 20	33	May 17	27	May 20 1992
ANNUAL SEVEN-DAY MINIMUM	29	May 17	36	May 11	29	May 17 1992
INSTANTANEOUS PEAK FLOW			6960	Jan 20	6960	Jan 20 1993
INSTANTANEOUS PEAK STAGE			13.49	Jan 20	13.49	Jan 20 1993
ANNUAL RUNOFF (AC-FT)	94110		293800		135700	
10 PERCENT EXCEEDS	160		1090		267	
50 PERCENT EXCEEDS	107		133		104	
90 PERCENT EXCEEDS	74		88		49	

11465350 DRY CREEK NEAR MOUTH, NEAR HEALDSBURG, CA

LOCATION.--Lat 38°35'15", long 122°51'40", in Sotoyome Grant, Sonoma County, Hydrologic Unit 18010110, on right bank 0.25 mi upstream from mouth, 0.4 mi downstream from Mill Creek, 1.7 mi south of Healdsburg, and 13.5 mi downstream from Warm Springs Dam.

DRAINAGE AREA.--217 mi^2.

PERIOD OF RECORD.--November 1980 to current year (low flow only).

GAGE.--Water-stage recorder. Elevation of gage is 50 ft above sea level, from topographic map.

REMARKS.--Records fair. No records computed above 200 ft^3/s. Some diversions for irrigation upstream from station. Flow regulated by Lake Sonoma 13.5 mi upstream beginning October 1983.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	80	95	---	---	---	---	143	---	127	108	144
2	80	91	128	---	---	---	---	131	---	123	115	139
3	72	91	111	---	---	---	---	124	---	121	122	139
4	73	91	97	---	---	---	---	110	---	119	123	150
5	75	93	99	---	---	---	---	e101	---	121	127	145
6	79	94	---	---	---	---	---	e96	---	119	127	143
7	83	95	---	---	---	---	---	e89	---	132	129	139
8	83	94	---	---	---	---	---	e83	---	199	130	129
9	81	95	---	---	---	---	---	e79	---	---	129	133
10	77	95	---	---	---	---	---	e75	---	---	127	136
11	76	96	---	---	---	---	---	e70	---	---	124	135
12	76	96	---	---	---	---	---	e59	---	---	120	138
13	80	94	---	---	---	---	---	54	---	200	119	126
14	85	94	---	---	---	---	---	53	191	196	129	93
15	88	94	184	---	---	---	---	47	186	193	124	97
16	88	94	161	---	---	---	---	51	185	189	128	96
17	88	94	150	---	---	---	---	51	176	192	144	109
18	88	95	141	---	---	---	---	44	161	188	125	116
19	79	96	134	---	---	---	---	57	153	190	119	116
20	83	96	130	---	---	---	---	63	159	172	119	117
21	84	96	127	---	---	---	---	50	157	123	120	115
22	80	96	122	---	---	---	---	46	151	103	130	114
23	80	96	118	---	---	---	---	57	149	97	134	114
24	78	95	117	---	---	---	---	64	144	95	136	77
25	78	92	114	---	---	---	---	42	134	98	135	68
26	78	94	113	---	---	---	191	---	133	101	133	64
27	78	96	111	---	---	---	156	---	133	102	138	55
28	78	97	---	---	---	---	121	---	131	118	132	16
29	97	95	---	---	---	---	142	---	125	121	137	7.8
30	80	95	---	---	---	---	158	---	129	112	144	6.9
31	73	---	---	---	---	---	---	---	---	108	133	---
TOTAL	2509	2820	---	---	---	---	---	---	---	---	3960	3177.7
MEAN	80.9	94.0	---	---	---	---	---	---	---	---	128	106
MAX	97	97	---	---	---	---	---	---	---	---	144	150
MIN	72	80	---	---	---	---	---	---	---	---	108	6.9
AC-FT	4980	5590	---	---	---	---	---	---	---	---	7850	6300

e Estimated.

11466500 LAGUNA DE SANTA ROSA NEAR GRATON, CA

LOCATION.--Lat 38°27'10", long 122°50'03", in Molinos Grant, Sonoma County, Hydrologic Unit 18010110, on downstream side of left bank pier of highway bridge, 0.2 mi downstream from Santa Rosa Creek, and 2 mi northeast of Graton.

PERIOD OF RECORD.--February 1940 to September 1949 (contents only), October 1964 to current year.

GAGE.--Water-stege recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers). Prior to Dec. 31, 1958, at site 75 ft downstream at same datum.

REMARKS.--The laguna is a natural water channel and overflow basin connecting Santa Rosa Creek, Mark West Creek, and other smaller creeks with the Russian River. During floods, directions of flow may be either to or from the Ruasian River, and the laguna acts as a natural regulator of floods on the lower Russian River. Figures given represent only those days when the elevation was above 55.0 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 74.6 ft, Feb. 18, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 64.7 ft, Jan. 21.

ELEVATION (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	59.6	---	---	---	---	---	---	---	---
2	---	---	---	57.5	---	---	---	---	---	---	---	---
3	---	---	---	56.2	---	---	---	---	---	---	---	---
4	---	---	---	55.5	---	---	---	---	---	---	---	---
5	---	---	---	55.1	---	---	---	---	---	---	---	---
6	---	---	---	56.4	---	---	---	---	---	---	---	---
7	---	---	---	57.5	---	---	---	---	---	---	---	---
8	---	---	56.4	56.6	---	---	---	---	---	---	---	---
9	---	---	57.6	55.9	---	---	---	---	---	---	---	---
10	---	---	59.0	55.4	55.7	---	---	---	---	---	---	---
11	---	---	57.8	55.0	56.1	---	---	---	---	---	---	---
12	---	---	56.6	56.4	55.5	---	---	---	---	---	---	---
13	---	---	55.8	60.0	55.0	---	---	---	---	---	---	---
14	---	---	55.1	59.1	---	---	---	---	---	---	---	---
15	---	---	---	57.9	---	---	---	---	---	---	---	---
16	---	---	---	57.0	---	---	---	---	---	---	---	---
17	---	---	---	56.7	55.5	55.7	---	---	---	---	---	---
18	---	---	---	56.4	57.1	55.8	---	---	---	---	---	---
19	---	---	---	56.2	58.2	55.2	---	---	---	---	---	---
20	---	---	---	64.4	57.6	---	---	---	---	---	---	---
21	---	---	---	64.3	56.4	---	---	---	---	---	---	---
22	---	---	---	61.3	56.7	---	---	---	---	---	---	---
23	---	---	---	58.0	59.6	---	---	---	---	---	---	---
24	---	---	---	56.4	57.7	---	---	---	---	---	---	---
25	---	---	---	55.8	56.2	---	---	---	---	---	---	---
26	---	---	---	55.3	55.6	---	---	---	---	---	---	---
27	---	---	---	55.0	55.2	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	55.0	---	---	---	---	---	---	---	---	---
30	---	---	55.7	---	---	---	---	---	---	---	---	---
31	---	---	56.8	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA
(National Stream Quality Accounting Network Station)

LOCATION.--Lat 38°30'31", long 122°55'36", in NE 1/4 SE 1/4 sec.26, T.8 N., R.10 W., Sonoma County, Hydrologic Unit 18010110, on right bank at downstream side of Hacienda Bridge, 0.1 mi upstream from Hobson Creek, and 3.8 mi east of Guerneville.

DRAINAGE AREA.--1,338 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1954, published as "at Guerneville."

REVISED RECORDS.--WSP 1395: Drainage area at former site. WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 20.14 ft above sea level. Prior to Oct. 1, 1954, nonrecording gage at bridge 5.3 mi downstream at datum 8.58 ft lower. Oct. 1, 1954, to Oct. 23, 1974, at site 0.7 mi downstream at datum 2.75 ft lower. Supplementary water-stage recorder 2.1 mi downstream used during periods of low flow, 1948-54.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Mendocino 77 mi upstream, beginning November 1958, and by Lake Sonoma 26 mi upstream, beginning October 1983. Many diversions upstream from station for irrigation of about 29,000 acres. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations), and by diversion for municipal use at Wohler Pumping Plant 4.0 mi upstream beginning in May 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 102,000 ft^3/s, Feb. 18, 1986, gage height, 48.56 ft, from rating curve extended above 39,000 ft^3/s; maximum gage height, 49.7 ft, Dec. 23, 1955, site and datum then in use, from floodmarks; minimum daily discharge, 0.75 ft^3/s, May 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 55,100 ft^3/s, Jan. 21, gage height, 37.79 ft; minimum daily, 130 ft^3/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	429	226	31900	6040	6780	2210	1030	1740	382	235	223
2	181	404	280	22700	4360	5990	2140	937	1510	388	227	199
3	192	399	713	11300	3820	4140	1940	886	1370	346	220	198
4	206	369	491	8670	2840	3580	1820	884	1410	344	203	197
5	203	344	414	6980	2540	3100	1720	847	1870	351	217	202
6	187	325	722	5660	2450	2770	1620	813	1760	336	222	187
7	184	308	2710	10500	2470	2520	1530	851	1600	338	224	283
8	183	297	2580	10600	3630	2300	1470	842	1410	346	227	266
9	183	278	12400	7750	4240	2140	1560	821	1280	363	229	187
10	184	220	13300	7130	3770	1980	1500	800	1180	344	245	193
11	181	221	17500	6260	7060	1850	1410	761	994	335	254	181
12	179	208	8640	5200	6360	1730	1330	619	757	319	229	181
13	180	220	5170	12000	4920	1640	1260	666	742	314	230	205
14	173	226	3240	20500	4210	1570	1290	601	698	294	226	156
15	165	231	2300	21300	3680	1520	1350	592	655	290	249	164
16	176	237	1760	20800	3310	1460	1320	587	692	311	218	191
17	178	273	1470	14500	4380	3810	2020	571	676	289	231	177
18	183	251	1290	12400	12100	4960	3190	561	678	307	232	191
19	163	237	1160	9890	19500	4520	2660	545	648	294	218	208
20	175	250	1030	29500	25000	3800	2220	632	541	285	212	218
21	318	261	969	52600	16300	3350	2210	621	480	284	225	210
22	249	275	919	41200	13800	2960	2010	591	465	262	236	179
23	230	279	830	23200	19700	2400	1550	574	443	262	196	190
24	217	243	762	16100	23200	3970	1600	601	412	245	202	209
25	213	278	701	13400	17400	4200	1550	657	347	232	226	183
26	196	272	652	11400	14100	3480	1370	810	298	213	197	169
27	194	265	616	9890	9860	2790	1290	2270	377	211	199	158
28	195	264	1070	8400	7660	2740	1250	2140	400	235	196	167
29	373	264	3390	7660	---	2410	1180	1460	422	235	195	155
30	422	240	5080	6960	---	2130	1100	1170	398	255	192	130
31	436	---	8110	6520	---	2010	---	1270	---	214	205	---
TOTAL	6663	8368	100495	472870	248700	94600	50670	27010	26253	9224	6817	5757
MEAN	215	279	3242	15250	8882	3052	1689	871	875	298	220	192
MAX	436	429	17500	52600	25000	6780	3190	2270	1870	388	254	283
MIN	163	208	226	5200	2450	1460	1100	545	298	211	192	130
AC-FT	13220	16600	199300	937900	493300	187600	100500	53570	52070	18300	13520	11420

11487000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	319	1249	4147	6577	6592	4475	2328	699	294	176	167	183
MAX	2515	9425	17410	25210	26020	23290	11700	2798	875	348	308	344
(WY)	1963	1974	1956	1970	1958	1983	1982	1983	1993	1987	1961	1961
MIN	25.3	140	116	127	88.2	201	48.2	39.0	22.6	32.0	36.7	35.9
(WY)	1978	1940	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1940 - 1993	
ANNUAL TOTAL	498309		1057427			
ANNUAL MEAN	1361		2897		2248	
HIGHEST ANNUAL MEAN					5898	1983
LOWEST ANNUAL MEAN					88.7	1977
HIGHEST DAILY MEAN	24700	Feb 20	52600	Jan 21	97700	Feb 18 1986
LOWEST DAILY MEAN	141	May 30	130	Sep 30	.75	May 6 1977
ANNUAL SEVEN-DAY MINIMUM	159	Sep 24	167	Sep 24	5.9	Jul 29 1977
INSTANTANEOUS PEAK FLOW			55100	Jan 21	102000	Feb 18 1986
INSTANTANEOUS PEAK STAGE			37.79	Jan 21	49.70	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	988400		2097000		1629000	
10 PERCENT EXCEEDS	2670		8230		5370	
50 PERCENT EXCEEDS	278		652		352	
90 PERCENT EXCEEDS	176		193		139	

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.
CHEMICAL DATA: Water years 1951 to current year. Published as "at Guernevllle" in 1961-65.
BIOLOGICAL DATA: Water years 1975-81.
SPECIFIC CONDUCTANCE: Water years 1974-81.
WATER TEMPERATURE: Water years 1964 to current year.
SEDIMENT DATA: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1973 to September 1981.
WATER TEMPERATURE: January 1964 to current year.
SUSPENDED-SEDIMENT DISCHARGE: April to September 1967, October 1969 to September 1986.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
17...	1215	274	249	8.2	13.5	0.70	763	10.3	99	K33	K13
JAN											
26...	1215	11900	165	7.9	9.5	87	762	10.6	93	K190	400
MAR											
17...	1100	4190	181	7.9	13.5	77	762	9.6	92	24000	36000
MAY											
24...	1330	585	267	8.2	19.5	2.4	766	8.8	95	20	27
JUL											
12...	1115	339	244	8.2	21.0	0.40	765	8.4	94	K16	K12
SEP											
21...	1115	223	247	8.2	18.5	3.2	764	8.6	92	K79	K30

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
NOV											
17...	110	0	22	13	11	16	0.5	1.1	134	0	110
JAN											
26...	76	1	16	8.7	6.8	16	0.3	1.3	91	0	75
MAR											
17...	75	3	15	9.0	7.4	17	0.4	1.9	87	0	71
MAY											
24...	120	1	24	14	9.9	15	0.4	1.3	142	0	116
JUL											
12...	110	0	22	13	8.9	15	0.4	1.1	135	0	111
SEP											
21...	110	2	24	12	8.6	14	0.4	1.1	131	0	107

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
NOV										
17...	15	7.9	0.10	11	139	147	0.19	0.010	0.020	<0.050
JAN										
26...	9.1	4.6	0.10	14	106	108	0.14	--	0.020	--
MAR										
17...	11	5.9	<0.10	13	110	109	0.15	--	0.010	--
MAY										
24...	15	7.6	0.10	14	154	157	0.21	--	<0.010	--
JUL										
12...	13	5.7	0.20	12	143	143	0.19	--	<0.010	--
SEP										
21...	13	5.9	0.10	13	137	143	0.19	--	<0.010	--

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)
NOV 17...	<0.050	0.020	<0.010	<0.20	0.030	0.040	0.020	0.020	<10	68
JAN 26...	0.490	--	0.040	0.40	0.220	0.060	--	0.060	80	45
MAR 17...	0.520	--	0.090	0.70	0.220	0.090	--	0.080	--	--
MAY 24...	0.250	--	0.030	<0.20	0.060	0.040	--	0.050	20	75
JUL 12...	0.110	--	0.040	<0.20	0.020	0.020	--	0.020	--	--
SEP 21...	0.062	--	0.020	<0.20	0.020	0.010	--	0.010	<10	69

DATE	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
NOV 17...	<3	13	5	10	<10	1	<1	<1.0	220	<6
JAN 26...	<3	47	<4	8	<10	3	<1	<1.0	150	<6
MAR 17...	--	--	--	--	--	--	--	--	--	--
MAY 24...	<3	7	4	10	<10	2	<1	<1.0	250	<6
JUL 12...	--	--	--	--	--	--	--	--	--	--
SEP 21...	<3	5	<4	5	<10	2	<1	<1.0	200	<6

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB 24...*	1640	30.4	163	158	7.5	9.5	763	10.6	93	194	92
24...*	1650	45.9	147	152	7.7	9.5	763	10.5	92	190	95
24...*	1700	41.8	133	153	7.7	9.5	763	10.6	93	184	96
24...*	1710	36.5	113	153	7.8	9.5	763	10.5	92	195	93
24...*	1720	28.7	78.0	152	7.8	9.5	763	10.4	91	196	91

* Instantaneous streamflow at the time of cross-sectional measurement: 21,500 ft^3/s;

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 17...	1215	274	13.5	4	3.0	86
JAN 26...	1215	11900	9.5	182	5850	94
FEB 24...	1655	21500	9.5	192	11100	94
MAR 17...	1100	4190	13.5	196	2220	91
MAY 24...	1330	585	19.5	8	13	89
JUL 12...	1115	339	21.0	12	11	96
SEP 21...	1115	223	18.5	11	6.6	94

11467500 SOUTH FORK GUALALA RIVER NEAR ANNAPOLIS, CA

LOCATION.--Lat 38°42'18", long 123°25'19", in Germen Grant, Sonoma County, Hydrologic Unit 18010109, on left bank 0.5 mi downstream from Wheetfield Fork of Guelela River, and 3.0 mi west of Annapolis.

DRAINAGE AREA.--161 mi^2.

PERIOD OF RECORD.--October 1950 to September 1971, June 1991 to current yeer (since June 1991, flows below 1,000 ft^3/s only).

GAGE.--Water-stege recorder. Elevation of gage is 70 ft above sea level, from topographic map. Prior to Aug. 30, 1962, at site 2,100 ft upstream at different datum. Aug. 31, 1962, to September 1971, at site 420 ft upstream at different datum.

REMARKS.--Records good. No regulation or diversion upstream from station. Beginning June 1991, no records computed above 1,000 ft^3/s.

EXTREMES FOR PERIOD OF RECORD (1951-71).--Maximum discharge, 55,000 ft^3/s, Dec. 22, 1955, gage height, 24.57 ft, site and datum then in use, from rating extended above 13,000 ft^3/s on basis of slope-area measurement of peak flow; minimum, 0.4 ft^3/s, Sept. 13, 1951.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	65	9.2	---	290	e586	e586	e167	487	80	18	e7.9
2	2.5	57	19	---	282	e464	e427	e150	386	75	16	e7.8
3	4.5	34	265	887	267	e470	e376	e162	322	71	14	7.7
4	5.6	24	102	591	245	e402	e353	e155	388	45	13	7.3
5	5.3	18	52	471	254	e360	e312	e134	554	61	12	7.0
6	4.5	15	---	559	236	e330	e285	e130	441	61	14	e7.0
7	4.1	13	659	---	217	e305	e261	124	362	60	14	e6.9
8	4.0	12	---	---	401	e283	e268	120	306	59	20	e6.8
9	3.1	10	---	993	379	e257	e324	116	254	60	32	e6.7
10	3.1	11	---	984	360	e234	e257	113	204	60	30	e6.5
11	2.7	11	---	751	---	e213	e228	110	172	59	24	e6.3
12	2.6	8.9	920	615	e833	192	e208	108	156	56	17	e6.2
13	3.0	8.6	509	---	e600	183	e192	106	136	50	16	e6.1
14	3.2	8.0	315	---	e491	181	e179	105	125	44	15	e6.0
15	3.3	8.0	195	---	417	180	e171	101	118	40	14	e6.0
16	2.3	8.0	128	---	e366	175	e157	97	116	38	e13	e5.9
17	2.3	8.0	167	---	---	---	e1000	93	115	37	e12	e5.8
18	2.3	8.0	146	---	---	---	e724	92	110	35	e11	e5.7
19	2.5	8.4	96	---	---	985	e460	111	108	32	e11	e5.6
20	4.8	8.9	80	---	---	e688	e368	149	106	30	e10	e5.5
21	12	9.7	73	---	---	e543	e312	134	104	29	e10	e5.4
22	13	19	58	---	---	e450	e271	110	105	27	e10	e5.3
23	14	24	47	---	---	e564	e346	102	103	25	e9.8	e5.3
24	9.8	18	40	---	---	e834	e540	102	100	24	e9.6	e5.4
25	7.8	14	35	905	---	e570	e341	123	97	23	e9.4	e5.3
26	6.7	12	30	687	e866	e479	e289	718	93	22	e9.2	e5.2
27	6.1	11	27	556	e731	e433	e255	705	92	23	e9.1	e5.1
28	5.4	11	214	439	e624	e437	e228	449	89	23	e8.9	e5.1
29	73	10	638	357	---	e358	e202	332	86	23	e8.7	e5.0
30	103	9.7	599	333	---	e314	e183	322	83	22	e8.5	e5.0
31	53	---	---	306	---	e332	---	536	---	21	e8.2	---
TOTAL	371.3	483.2	---	---	---	---	10103	6076	5918	1315	427.4	182.8
MEAN	12.0	16.1	---	---	---	---	337	196	197	42.4	13.8	6.09
MAX	103	65	---	---	---	---	1000	718	554	80	32	7.9
MIN	1.8	8.0	---	---	---	---	157	92	83	21	8.2	5.0
AC-FT	736	958	---	---	---	---	20040	12050	11740	2610	848	363

e Estimated.

11467500 SOUTH FORK GUALALA RIVER NEAR ANNAPOLIS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1971, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	76.9	245	1026	1471	1158	626	410	117	37.1	13.4	7.16	10.4
MAX	736	879	3060	4152	4407	1188	1401	660	103	23.9	24.5	90.0
(WY)	1958	1964	1956	1970	1958	1960	1963	1957	1957	1957	1954	1957
MIN	1.02	8.08	13.3	260	132	83.2	55.8	31.6	14.0	2.85	1.72	1.68
(WY)	1967	1960	1960	1962	1971	1955	1964	1964	1970	1970	1970	1970

SUMMARY STATISTICS	WATER YEARS 1951 - 1971	
ANNUAL MEAN	431	
HIGHEST ANNUAL MEAN	774	1958
LOWEST ANNUAL MEAN	190	1964
HIGHEST DAILY MEAN	25500	Dec 22 1955
LOWEST DAILY MEAN	.48	Oct 2 1970
ANNUAL SEVEN-DAY MINIMUM	.51	Sep 30 1970
INSTANTANEOUS PEAK FLOW	55000	Dec 22 1955
INSTANTANEOUS PEAK STAGE	24.57	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	311900	
10 PERCENT EXCEEDS	1040	
50 PERCENT EXCEEDS	57	
90 PERCENT EXCEEDS	4.8	

11467590 GARCIA RIVER AT EUREKA HILL ROAD, NEAR POINT ARENA, CA

LOCATION.--Lat 38°54'12", long 123°36'28", in NW 1/4 SW 1/4, sec.14, T.12 N., R.16 W., Mendocino County, Hydrologic Unit 18010108, on upstream side of bridge, 1.9 mi upstream from North Fork Garcia River and 4.5 mi southeast of Point Arene.

DRAINAGE AREA.--83.2 mi^2.

PERIOD OF RECORD.--
SEDIMENT DATA: October 1992 to September 1993.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC								
03...	1040	103	9.5	15	4.2	--	--	--
10...	1510	5040	10.5	2320	31600	32	40	52
JAN								
07...	1405	1180	10.5	121	386	--	--	--
28...	1040	408	10.0	30	33	--	--	--
FEB								
11...	1405	571	10.5	73	113	--	--	--
MAR								
11...	1115	158	12.5	4	1.7	--	--	--
MAY								
06...	1630	107	16.5	2	0.58	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
DEC							
03...	--	--	77	89	100	--	--
10...	68	81	89	95	99	100	--
JAN							
07...	--	--	70	83	94	98	100
28...	--	--	66	--	--	--	--
FEB							
11...	--	--	74	84	98	100	--
MAR							
11...	--	--	76	--	--	--	--
MAY							
06...	--	--	100	--	--	--	--

11467590 GARCIA RIVER AT EUREKA HILL ROAD, NEAR POINT ARENA, CA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	TEMPER-ATURE WATER (DEG C)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM
OCT								
23...	1345	17.0	1	45.0	15	7	26	73
23...	1350	17.0	1	70.0	15	1	5	17
23...	1355	17.0	1	90.0	15	1	2	3
23...	1400	17.0	1	110	15	1	2	9
23...	1405	17.0	1	130	15	1	2	4
23...	1410	17.0	1	150	15	1	2	6
23...	1415	17.0	1	170	15	2	7	24
23...	1420	17.0	1	190	15	1	2	5
23...	1425	17.0	1	210	15	1	2	6
23...	1430	17.0	1	230	15	4	22	77

DATE	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT								
23...	92	96	98	100	--	--	--	--
23...	33	44	54	73	94	100	--	--
23...	4	6	10	23	36	65	100	--
23...	20	27	34	46	60	84	100	--
23...	8	13	19	25	33	45	74	100
23...	11	16	19	27	40	67	89	100
23...	43	48	52	56	60	67	89	100
23...	12	17	22	30	42	65	79	100
23...	14	24	33	43	55	73	87	100
23...	99	100	--	--	--	--	--	--

11467590 GARCIA RIVER AT EUREKA HILL ROAD, NEAR POINT ARENA, CA

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	BORIZONTAL WIDTH OF VERTICAL (FEET)	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)
DEC										
10...	1615	1000	1100	0.250	0	1545	1645	30	10.0	1
JAN										
07...*	1510	1000	1100	0.250	0	1435	1550	30	2.8	1
FEB										
11...	1450	1000	1100	0.250	0	1440	1500	30	2.6	1

DATE	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
DEC									
10...	15	15	85.0	5040	10.5	10.6	1590	--	--
JAN									
07...	40	40	66.0	1180	10.5	0.02	2.2	--	--
FEB									
11...	12	12	78.0	571	10.5	0.07	2.2	1	1

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
DEC									
10...	2	10	20	30	39	49	65	87	100
JAN									
07...	2	8	16	25	38	58	81	90	100
FEB									
11...	26	67	81	87	95	100	--	--	--

*Bedload samples taken on Jan. 7, 1993, were from a two-channel cross section. Each channel was sampled and analyzed separately. However, the date were combined for publication.

11468000 NAVARRO RIVER NEAR NAVARRO, CA

LOCATION.--Lat 39°10'20", long 123°40'06", in SE 1/4 sec.7, T.15 N., R.16 W., Mendocino County, Hydrologic Unit 18010108, on right bank 2.9 mi downstream from North Fork, 5.2 mi upstream from mouth, and 6.8 mi west of Navarro.

DRAINAGE AREA.--303 mi^2.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1445: 1954(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4.79 ft above sea level. Prior to Oct. 1, 1969, at site 0.2 mi upstream at datum 1.86 ft higher.

REMARKS.--Records poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,500 ft^3/s, Dec. 22, 1955, gage height, 40.60 ft, site and datum then in use, from rating curve extended above 19,000 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.23 ft^3/s, July 13, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 38.2 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 10	1915	10,800	17.91	Jan. 21	Unknown	*48,200	*35.42
Jan. 1	0115	28,000	27.91				

Minimum daily, 3.1 ft^3/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	91	18	15500	459	e650	686	238	399	65	21	14
2	3.9	91	23	3930	417	e570	588	214	337	59	21	14
3	7.7	70	99	1800	385	e510	538	215	283	60	22	14
4	7.8	50	161	1130	356	e480	522	224	266	62	21	14
5	11	37	79	900	e340	e410	490	196	409	58	21	14
6	9.8	29	71	910	e320	e400	457	195	425	56	21	14
7	7.4	24	1020	e2730	e310	e375	425	185	389	50	22	13
8	6.4	21	973	e2920	e340	e342	398	175	354	49	23	14
9	5.7	19	5470	e2710	e375	e322	442	166	307	48	22	14
10	5.5	17	5920	e2400	e500	e310	391	159	272	46	22	13
11	5.3	16	3760	e2320	e690	300	352	154	237	43	e21	13
12	5.2	15	1890	e1780	e630	279	328	151	211	41	e22	13
13	4.9	14	965	e1620	e595	261	311	151	197	42	22	13
14	5.0	14	619	e3350	e535	281	296	149	176	40	22	13
15	4.8	14	460	e5360	e460	262	281	142	160	38	23	13
16	4.8	14	363	e3950	e425	242	262	136	151	41	23	13
17	5.0	14	312	e3400	e440	702	552	130	144	36	22	13
18	5.1	14	292	e2600	e725	1120	857	125	136	33	22	14
19	5.4	16	237	e2030	e1530	850	591	125	125	33	22	13
20	7.5	16	213	e16900	e3130	688	516	136	117	32	23	14
21	15	18	200	e29700	e2800	593	461	143	111	30	22	13
22	30	26	178	e15300	e3000	524	419	130	107	28	21	13
23	20	31	161	e8350	e3150	633	392	122	101	29	20	13
24	15	29	149	e4800	e2600	1600	505	118	99	28	19	13
25	12	25	138	e2500	e1830	1090	422	118	91	26	19	12
26	11	22	129	e1200	e1330	906	383	148	81	26	17	e11
27	10	21	121	963	e965	776	344	282	79	25	17	e10
28	10	20	290	798	e790	730	319	403	77	25	16	e9.8
29	21	20	1660	688	---	614	292	274	74	24	15	e9.6
30	86	18	1670	594	---	540	268	232	70	23	15	e9.3
31	100	---	9870	516	---	502	---	339	---	22	14	---
TOTAL	451.3	826	37511	143649	29427	17862	13088	5675	5985	1219	633	383.7
MEAN	14.6	27.5	1210	4634	1051	576	436	183	199	39.3	20.4	12.8
MAX	100	91	9870	29700	3150	1600	857	403	425	65	23	14
MIN	3.1	14	18	516	310	242	262	118	70	22	14	9.3
AC-FT	895	1640	74400	284900	58370	35430	25960	11260	11870	2420	1260	761

e Estimated.

11468000 NAVARRO RIVER NEAR NAVARRO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	43.6	291	991	1597	1414	1028	501	129	50.1	20.1	11.1	10.5
MAX	367	2033	4396	5464	5522	4280	2517	499	199	46.7	26.8	32.6
(WY)	1958	1974	1965	1970	1958	1983	1982	1983	1993	1983	1983	1957
MIN	3.10	9.06	18.5	24.0	58.6	69.8	34.2	14.1	4.23	.62	.67	1.33
(WY)	1989	1991	1977	1991	1977	1988	1977	1977	1977	1977	1977	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1951 - 1993	
ANNUAL TOTAL	140007.1		256710.0			
ANNUAL MEAN	383		703		504	
HIGHEST ANNUAL MEAN					1310	1983
LOWEST ANNUAL MEAN					25.0	1977
HIGHEST DAILY MEAN	9870	Dec 31	29700	Jan 21	45100	Jan 16 1974
LOWEST DAILY MEAN	2.3	Aug 23	3.1	Oct 1	.23	Jul 13 1977
ANNUAL SEVEN-DAY MINIMUM	2.3	Aug 23	5.0	Oct 12	.28	Jul 8 1977
INSTANTANEOUS PEAK FLOW			48200	Jan 21	64500	Dec 22 1955
INSTANTANEOUS PEAK STAGE			35.42	Jan 21	40.60	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	277700		509200		364900	
10 PERCENT EXCEEDS	766		1560		1200	
50 PERCENT EXCEEDS	35		138		59	
90 PERCENT EXCEEDS	2.8		13		7.7	

11468500 NOYO RIVER NEAR FORT BRAGG, CA

LOCATION.--Lat 39°25'42", long 123°44'12", in NE 1/4 sec.15, T.18 N., R.17 W., Mendocino County, Hydrologic Unit 18010108, on right bank 0.7 mi downstream from South Fork and 3.5 mi east of Fort Bragg.

DRAINAGE AREA.--106 mi^2.

PERIOD OF RECORD.--August 1951 to current year.

REVISED RECORDS.--WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 11.73 ft above sea level.

REMARKS.--Records good. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,600 ft^3/s, Mar. 29, 1974, gage height, 27.14 ft, from rating curve extended above 4,500 ft^3/s on basis of slope-conveyance study; minimum daily, 0.79 ft^3/s, Sept. 8, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 10	1730	3,960	12.31	Jan. 20	1630	*23,100	*26.49
Dec. 31	2015	11,900	20.70	Mar. 18	0445	2,600	10.28
Jan. 14	0730	2,530	10.27				

Minimum daily, 2.8 ft^3/s, Oct. 12-14, 16, 17, 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	49	8.1	5470	220	347	288	143	731	44	21	e13
2	9.6	55	16	1840	192	318	260	129	555	43	20	e12
3	14	35	26	914	175	299	243	135	402	41	19	e12
4	16	24	23	577	159	264	274	134	346	40	18	e12
5	6.4	17	19	424	149	235	280	116	368	39	18	e12
6	4.9	14	32	398	138	217	269	107	309	38	18	e12
7	4.0	12	104	1030	129	200	248	100	269	37	18	e11
8	3.7	10	453	1100	131	185	234	93	227	36	18	e11
9	3.3	8.7	1460	853	134	173	234	88	195	35	18	e11
10	3.1	7.9	2250	803	137	167	212	83	169	34	18	e11
11	3.1	7.1	1600	688	326	152	191	80	147	33	17	e11
12	2.8	6.7	1090	550	329	141	176	78	124	30	17	e10
13	2.8	6.1	560	549	294	135	160	76	116	29	17	e10
14	2.8	6.0	330	2100	260	132	149	72	106	29	17	e10
15	2.9	6.0	224	1530	229	138	140	62	97	28	16	e10
16	2.8	6.2	165	1290	200	141	125	64	91	28	16	e10
17	2.8	7.5	144	993	210	1710	278	62	85	28	16	e9.9
18	2.9	8.1	128	762	289	2370	440	61	79	27	16	e9.8
19	2.8	9.6	109	633	791	1480	402	62	73	27	16	e9.8
20	4.8	12	108	13600	1810	925	347	68	68	26	16	e9.7
21	15	11	104	5780	1370	649	296	64	65	25	16	e9.7
22	12	25	97	3360	1180	487	246	60	61	26	16	e9.6
23	7.8	32	91	2060	1900	548	244	57	59	25	15	e9.5
24	5.8	23	85	1260	1490	763	312	57	57	25	15	e9.6
25	4.9	17	79	856	998	701	269	57	55	24	14	e9.4
26	5.0	14	74	626	715	577	240	118	52	23	14	e9.5
27	4.4	12	69	486	536	460	217	205	50	23	e14	e9.6
28	4.3	11	136	386	419	374	195	177	48	23	e14	e9.5
29	19	9.9	624	325	---	305	172	141	51	23	e13	e9.5
30	48	8.8	984	283	---	256	155	173	42	23	e13	e9.4
31	35	---	5680	249	---	237	---	608	---	22	e13	---
TOTAL	263.8	471.6	16872.1	51775	14910	15086	7296	3530	5097	934	507	312.5
MEAN	8.51	15.7	544	1670	532	487	243	114	170	30.1	16.4	10.4
MAX	48	55	5680	13600	1900	2370	440	608	731	44	21	13
MIN	2.8	6.0	8.1	249	129	132	125	57	42	22	13	9.4
AC-FT	523	935	33470	102700	29570	29920	14470	7000	10110	1850	1010	620

e Estimated.

11468500 NOYO RIVER NEAR FORT BRAGG, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.8	126	412	624	531	439	214	74.2	33.7	13.7	7.57	6.39
MAX	166	750	2293	1890	2113	1406	877	377	170	32.0	17.7	12.7
(WY)	1963	1974	1965	1953	1958	1983	1963	1990	1993	1953	1953	1983
MIN	2.97	5.29	9.25	16.6	18.1	32.4	11.7	9.50	3.88	1.90	1.35	2.16
(WY)	1979	1960	1977	1977	1977	1988	1977	1977	1977	1977	1977	1970

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1952 - 1993	
ANNUAL TOTAL	44971.9		117055.0			
ANNUAL MEAN	123		321		207	
HIGHEST ANNUAL MEAN					484	1983
LOWEST ANNUAL MEAN					10.8	1977
HIGHEST DAILY MEAN	5680	Dec 31	13600	Jan 20	20500	Dec 22 1964
LOWEST DAILY MEAN	2.8	Oct 12	2.8	Oct 12	.79	Sep 8 1977
ANNUAL SEVEN-DAY MINIMUM	2.8	Oct 12	2.8	Oct 12	1.0	Aug 16 1977
INSTANTANEOUS PEAK FLOW			23100	Jan 20	26600	Mar 29 1974
INSTANTANEOUS PEAK STAGE			26.49	Jan 20	27.14	Mar 29 1974
ANNUAL RUNOFF (AC-FT)	89200		232200		150000	
10 PERCENT EXCEEDS	203		743		517	
50 PERCENT EXCEEDS	20		72		32	
90 PERCENT EXCEEDS	4.6		9.4		5.1	

11469000 MATTOLE RIVER NEAR PETROLIA, CA

LOCATION.--Lat 40°18'42", long 124°15'48", in SE 1/4 NW 1/4 sec.11, T.2 S., R.2 W., Humboldt County, Hydrologic Unit 18010107, on right bank 0.2 mi upstream from Clear Creek, 1.5 mi southeast of Petrolia, and 1.7 mi upstream from North Fork.

DRAINAGE AREA.--240 mi^2.

PERIOD OF RECORD.--October 1911 to December 1913, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1285: 1912-13. WSP 1929: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 40 ft above sea level, from topographic map. November 1911 to December 1913, nonrecording gages at several sites upstream within 0.3 mi of present site at various datums. Dec. 11, 1950, to July 14, 1955, at site 0.3 mi upstream at datum 7.48 ft higher. July 15, 1955, to Oct. 26, 1967, at site 0.4 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Records good. Diversions for irrigation of about 350 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,400 ft^3/s, Dec. 22, 1955, gage height, 29.60 ft, site and datum then in use, from rating curve extended above 26,000 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 17 ft^3/s, Sept. 5, 15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 10	1200	15,900	13.25	Jan. 20	1015	*45,400	*21.44
Dec. 31	unknown	40,800	20.45	Mar. 18	unknown	17,300	13.89

Minimum daily, 34 ft^3/s, Oct. 10-19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	1220	172	e10300	1260	922	1930	997	4430	318	112	58
2	82	619	388	4870	1170	915	1860	908	3520	308	109	58
3	69	367	460	3010	1110	1790	1760	1050	2620	295	102	58
4	56	266	333	2140	950	1490	4870	1090	2210	282	99	56
5	50	217	278	1670	839	1170	3390	901	1880	271	98	55
6	43	185	424	1470	783	961	2470	835	1570	259	98	55
7	41	166	987	3520	728	823	1930	776	1380	245	98	55
8	39	149	5380	3730	731	713	2190	724	1220	233	96	54
9	38	135	7220	2910	791	615	2250	676	1090	224	96	52
10	34	126	10600	2610	853	605	2230	639	990	212	92	52
11	34	118	6180	2080	1770	e650	2010	602	901	203	89	52
12	34	112	3630	1690	1610	e600	1700	586	849	194	89	50
13	34	107	1980	1630	1410	e550	1460	561	783	186	87	50
14	34	106	1240	2670	1250	e800	1270	633	720	186	83	49
15	34	102	871	2700	1110	e2000	1110	546	683	181	81	49
16	34	100	666	3800	1010	e5600	1010	511	640	176	81	49
17	34	100	650	2910	965	e10800	3210	481	605	173	78	49
18	34	100	550	2230	1700	e12000	3430	455	573	166	75	49
19	34	141	454	3140	6650	e8000	2410	866	544	159	72	49
20	73	167	497	31000	6930	3660	2020	1210	517	153	80	49
21	200	148	484	15600	4330	2490	1790	885	492	146	83	47
22	134	740	429	13600	3660	1810	1520	796	469	147	80	46
23	93	452	379	7130	4550	4040	2100	696	443	150	73	46
24	72	307	340	4620	3310	3290	3020	634	425	145	69	44
25	62	249	306	3390	2360	2330	2260	599	405	138	66	43
26	57	211	278	2640	1790	1820	1930	652	383	136	64	43
27	52	226	342	2200	1380	1450	1620	1050	364	133	64	41
28	51	231	4180	1900	1110	1210	1400	1100	353	132	61	41
29	282	204	e4510	1660	---	1030	1230	1070	341	128	59	41
30	653	185	e4030	1500	---	884	1100	3200	327	123	59	40
31	525	---	e24200	1370	---	888	---	4930	---	119	58	---
TOTAL	3102	7556	82438	145690	56110	75906	62480	30659	31727	5921	2551	1480
MEAN	100	252	2659	4700	2004	2449	2083	989	1058	191	82.3	49.3
MAX	653	1220	24200	31000	6930	12000	4870	4930	4430	318	112	58
MIN	34	100	172	1370	728	550	1010	455	327	119	58	40
AC-FT	6150	14990	163500	289000	111300	150600	123900	60810	62930	11740	5060	2940

e Estimated.

11469000 MATTOLE RIVER NEAR PETROLIA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	253	1513	2896	3487	3018	2257	1210	549	215	83.4	51.8	64.0
MAX	1900	7159	8340	8928	10710	7929	5225	1842	1058	191	164	237
(WY)	1951	1974	1956	1970	1958	1983	1963	1960	1993	1993	1983	1977
MIN	23.8	41.8	39.7	135	243	187	166	151	68.9	31.3	22.9	22.0
(WY)	1988	1960	1977	1977	1977	1988	1988	1970	1977	1977	1977	1970

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1912 - 1993	
ANNUAL TOTAL	326995		505620			
ANNUAL MEAN	893		1385		1293	
HIGHEST ANNUAL MEAN					2642	1983
LOWEST ANNUAL MEAN					157	1977
HIGHEST DAILY MEAN	24200	Dec 31	31000	Jen 20	55200	Dec 22 1964
LOWEST DAILY MEAN	24	Sep 23	34	Oct 10	17	Sep 5 1977
ANNUAL SEVEN-DAY MINIMUM	25	Sep 17	34	Oct 10	17	Sep 5 1977
INSTANTANEOUS PEAK FLOW			45400	Jan 20	90400	Dec 22 1955
INSTANTANEOUS PEAK STAGE			21.44	Jan 20	29.60	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	648600		1003000		936700	
10 PERCENT EXCEEDS	2070		3390		3290	
50 PERCENT EXCEEDS	237		561		274	
90 PERCENT EXCEEDS	30		52		37	

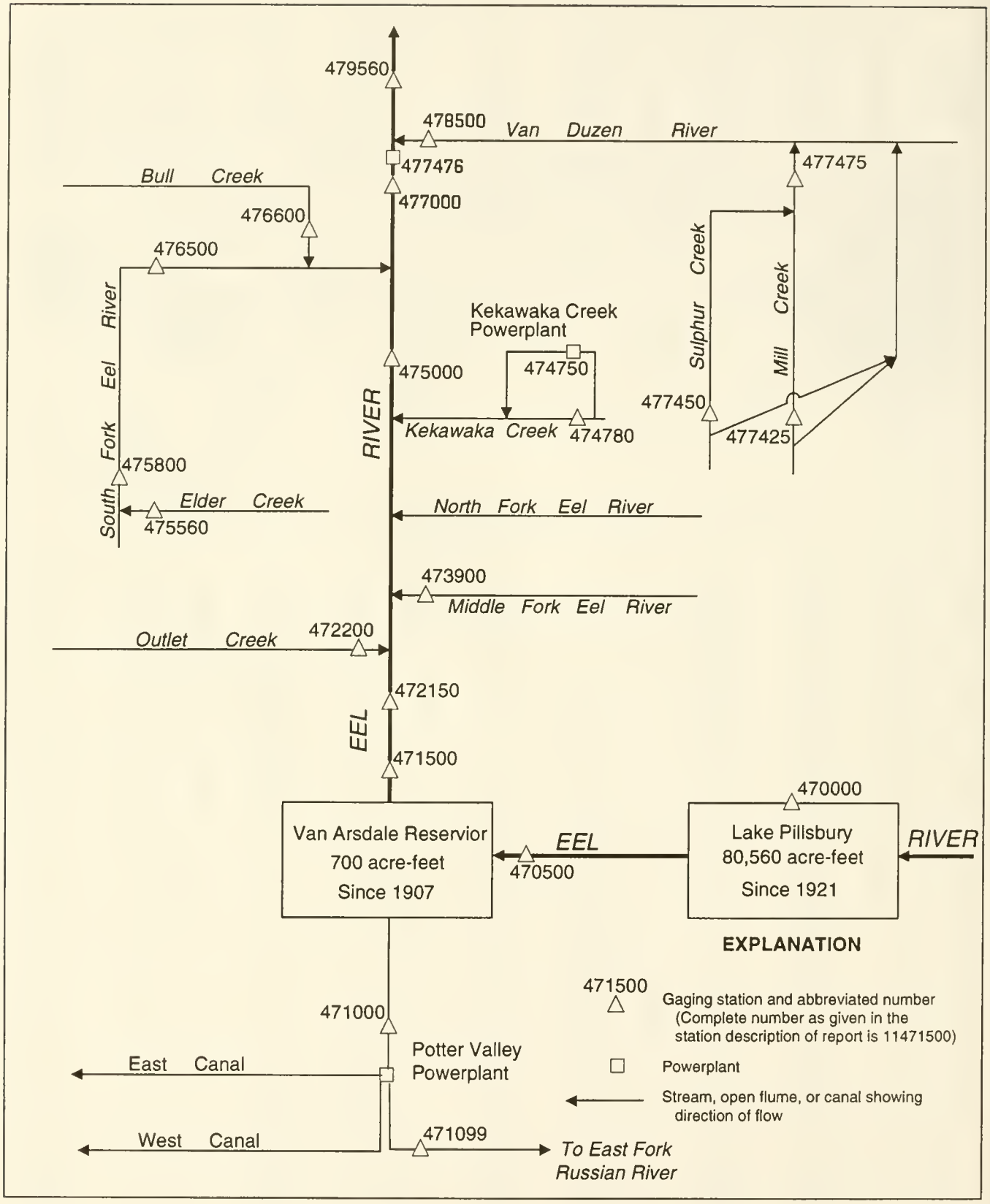

Figure 25. Diversions and storage in Eel River basin.

11470000 LAKE PILLSBURY NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°24'30", long 122°57'30", on line between secs.14 and 23, T.18 N., R.10 W., Lake County, Hydrologic Unit 18010103, Mendocino National Forest, at Scott Dam near right bank of Eel River, 0.3 mi downstream from Rice Fork, and 10.2 mi northeast of town of Potter Valley.
DRAINAGE AREA.--289 mi^2.

PERIOD OF RECORD.--October 1922 to September 1928 (daily gage heights only), October 1928 to current year. Monthend contents only for some periods, published in WSP 1315-B. Prior to October 1953, published as "at Hullville."

GAGE.--Water-stage recorder and nonrecording gage. Datum of gage is 81.7 ft below sea level (river-profile survey). Prior to Jan. 26, 1950, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete overflow-type dam; storage began in December 1921. Beginning Oct. 1, 1985, capacity based on 1984 resurvey. Usable capacity, 80,556 acre-ft between gage heights 1,822.4 ft, sill of outlet gate, and 1,910.0 ft, top of spillwey gates; dead storage, 87 acre-ft. Water is released down Eel River to Van Arsdale Reservoir, most of which is diverted through tunnel to Potter Valley Powerplant; part is then used for irrigation and remainder flows into East Fork Russian River. Records given represent total contents at 2400 hours.
COOPERATION.--Records were provided by Pacific Gas & Electric Co., in connection with a Federal Energy Regulatory Commission project; not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 95,600 acre-ft, May 13, 16, 1925, gage height, 1,910.8 ft; maximum gage height, 1,911.84 ft, Dec. 22, 1964, from floodmarks; minimum contents, 10 acre-ft, Dec. 9, 10, 1931, gage height, 1,822.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 80,643 acre-ft, May 2, 3, gage height, 1,910.00 ft; minimum, 27,614 acre-ft, Dec. 5, gage height, 1,879.62 ft.

Capacity table (elevation, in feet, and contents in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated April 1984)

1,822.4	87	1,835	1,371	1,855	7,831	1,875	22,451	1,895	50,179
1,824	153	1,840	2,463	1,860	10,456	1,880	28,071	1,900	59,469
1,827	333	1,845	3,391	1,865	13,701	1,885	34,474	1,905	69,675
1,830	626	1,850	5,710	1,870	17,664	1,890	41,811	1,910	80,643

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41232	34188	28287	63897	60585	60723	60743	80324	80096	77488	69864	61995
2	41015	34161	28167	61835	60585	60703	61178	80643	79371	77222	69611	61695
3	40721	34052	27962	60940	60349	60920	61955	80643	79100	76934	69398	61436
4	40444	33890	27710	60526	60329	60723	63062	80164	79100	76492	69100	61118
5	40153	33648	27614	60211	60940	60723	64040	80164	79235	76140	68866	60881
6	39894	33420	28492	60782	60940	60920	65020	80369	79258	75855	68591	60545
7	39591	33300	29089	62336	60920	60920	65797	80369	79213	75352	68379	60211
8	39305	33060	34858	61595	62155	60920	66893	80164	79326	74870	68085	59761
9	39064	32769	41638	61138	61955	60901	67916	79892	79461	74627	67853	59160
10	38736	32638	52503	60703	61436	60920	68802	79914	79778	74473	67644	58535
11	38439	32336	56791	60349	62175	60723	69675	79937	80028	74297	67372	57917
12	38158	32154	58341	60290	61516	60723	70287	79937	80142	74165	67101	57343
13	37894	31920	59352	61536	61118	60920	70689	79937	80324	74056	66789	56734
14	37603	31649	59800	66706	60960	61099	71136	79710	80369	73771	66561	56130
15	37284	31419	59937	63002	60762	61079	71800	78965	80369	73662	66312	55456
16	37010	31201	59878	62598	60545	61357	72165	78717	80301	73400	65982	54862
17	36738	30958	59683	61955	61337	61416	75505	78717	80278	73182	65715	54230
18	36453	30702	59410	61357	63489	63979	77177	78740	80096	72987	65613	53619
19	36156	30562	59176	61755	66685	63387	77422	78740	80073	72922	65592	52940
20	36071	30309	59020	72640	64204	62457	77444	79213	79914	72618	65367	52340
21	35579	30258	58767	69015	62981	61476	77155	78987	79846	72467	65122	51780
22	35287	30057	58535	65592	62779	61257	76978	78942	79688	72144	64775	51171
23	35051	29944	58168	63774	63164	62316	77177	78965	79665	71928	64532	50514
24	34789	29694	57975	62598	62336	62416	76956	79010	79439	71735	64224	49948
25	34515	29595	57534	61915	61935	61795	77444	79258	79123	71542	63979	49418
26	34229	29322	57152	61695	61357	61416	77889	79733	78920	71328	63672	48804
27	33998	29187	56734	61695	61099	61099	78336	80164	78672	71136	63387	48179
28	33742	28942	57725	61456	60920	60901	78830	79937	78381	70987	63123	47593
29	33755	28747	58962	61079	---	60743	79393	79756	78157	70689	62880	47047
30	34079	28565	59508	60901	---	60565	80142	80051	77800	70414	62577	46505
31	34107	---	68548	60762	---	60683	---	80643	---	70139	62276	---
MAX	41232	34188	68548	72640	66685	63979	80142	80643	80369	77488	69864	61995
MIN	33742	28565	27614	60211	60329	60565	60743	78717	77800	70139	62276	46505
a	1884.73	1880.41	1904.47	1900.66	1900.74	1900.62	1909.78	1910.00	1908.74	1905.22	1901.42	1892.88
b	-7375	-5542	+39983	-7786	+158	-237	+19459	+501	-2843	-7661	-7863	-15771

CAL YR 1992 MAX 80552 MIN 21678 b +46563
WTR YR 1993 MAX 80643 MIN 27614 b +5023
a Elevation in feet, at end of month.
b Change in contents, in acre-feet.

11470500 EEL RIVER BELOW SCOTT DAM, NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°24'29", long 122°58'29", in SE 1/4 sec.15, T.18 N., R.10 W., Lake County, Hydrologic Unit 18010103, Mendocino National Forest, on left bank 0.4 mi upstream from Soda Creek, 0.7 mi downstream from Scott Dam, and 9.7 mi northeast of town of Potter Valley.

DRAINAGE AREA.--290 mi^2.

PERIOD OF RECORD.--October 1922 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1929, published as "South Eel River at Hullville," and October 1929 to September 1953, "at Hullville."

REVISED RECORDS.--WSP 1315-B: 1923(M), 1938(M). WSP 1395: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,740 ft above sea level, from topographic map. Prior to Dec. 15, 1930, at datum 3.00 ft higher.

REMARKS.--No estimated daily discharges. Flow regulated by Lake Pillsbury (station 11470000) 0.7 mi upstream. No diversion upstream from station.

COOPERATION.--Records collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,300 ft^3/s, Dec. 22, 1964, gage height, 24.24 ft, from floodmarks, from rating curve extended above 37,000 ft^3/s; minimum daily, 0.1 ft^3/s, Sept. 8, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28,100 ft^3/s, Jan. 20, gage height, 17.48 ft; minimum daily, 45 ft^3/s, Aug. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	145	137	8090	1000	1150	1020	491	1460	267	147	144
2	139	145	137	2980	926	1100	716	552	1210	264	146	144
3	137	143	137	1540	874	1190	454	996	877	269	149	148
4	135	142	136	1060	831	1210	425	729	788	275	147	150
5	136	142	132	849	963	1160	347	553	801	271	146	148
6	136	142	137	779	1220	1190	286	498	777	272	147	147
7	136	142	139	2240	1190	1270	298	502	676	300	139	149
8	156	141	158	2180	1840	1310	308	506	474	323	141	243
9	134	139	169	1530	2260	1320	316	507	413	211	144	299
10	138	139	335	1210	1860	1310	319	504	300	145	136	323
11	146	139	289	956	2550	1260	328	500	237	137	134	323
12	150	141	228	816	2030	1220	316	494	298	134	138	323
13	151	143	227	1070	1570	1240	315	492	269	135	143	322
14	147	142	266	3750	1330	1300	319	492	251	139	142	322
15	145	141	383	3450	1160	1330	318	487	259	134	141	321
16	148	141	457	3090	1020	1300	319	428	272	139	139	322
17	148	141	529	2430	1070	3330	351	375	271	139	140	324
18	147	141	457	1820	2300	4040	880	373	264	136	78	323
19	148	141	428	1470	5960	3040	992	355	266	132	45	322
20	148	140	433	16000	6070	2280	996	331	270	133	99	322
21	147	140	420	12300	3660	1800	994	332	271	136	142	320
22	146	141	422	9420	2800	1540	986	332	270	139	142	318
23	146	138	428	4850	3220	1650	899	336	271	139	142	318
24	143	138	430	3140	2870	2730	822	344	271	139	141	290
25	144	139	431	2340	2150	2210	679	343	275	137	141	293
26	144	139	430	1900	1670	1710	459	426	276	132	141	314
27	143	139	431	1650	1410	1450	289	691	276	133	142	309
28	143	138	439	1480	1250	1280	260	610	270	141	143	307
29	146	137	444	1330	---	1130	262	607	261	146	143	312
30	146	137	444	1200	---	1040	374	560	265	149	144	314
31	145	---	4090	1100	---	978	---	1370	---	147	144	---
TOTAL	4456	4216	13723	98020	57054	50068	15647	16116	13139	5493	4206	8214
MEAN	144	141	443	3162	2038	1615	522	520	438	177	136	274
MAX	156	145	4090	16000	6070	4040	1020	1370	1460	323	149	324
MIN	134	137	132	779	831	978	260	331	237	132	45	144
AC-FT	8840	8360	27220	194400	113200	99310	31040	31970	26060	10900	8340	16290

11470500 EEL RIVER BELOW SCOTT DAM, NEAR POTTER VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	222	283	745	1212	1394	1020	666	318	196	181	182	212
MAX	361	1851	4945	5684	6624	4536	3357	1184	438	329	334	335
(WY)	1963	1974	1965	1970	1986	1983	1982	1983	1993	1959	1959	1961
MIN	19.1	13.3	27.6	35.8	7.27	11.8	15.4	34.4	50.3	64.5	65.0	34.4
(WY)	1978	1934	1960	1944	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1923 - 1993	
ANNUAL TOTAL	104757		290352			
ANNUAL MEAN	286		795		548	
HIGHEST ANNUAL MEAN					1443	1983
LOWEST ANNUAL MEAN					85.4	1977
HIGHEST DAILY MEAN	4930	Feb 20	16000	Jan 20	45300	Dec 22 1964
LOWEST DAILY MEAN	47	Sep 1	45	Aug 19	.10	Sep 8 1924
ANNUAL SEVEN-DAY MINIMUM	90	Aug 31	112	Aug 14	.43	Sep 6 1924
INSTANTANEOUS PEAK FLOW			28100	Jan 20	56300	Dec 22 1964
INSTANTANEOUS PEAK STAGE			17.48	Jan 20	24.24	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	207800		575900		397300	
10 PERCENT EXCEEDS	439		1810		1080	
50 PERCENT EXCEEDS	145		318		233	
90 PERCENT EXCEEDS	109		139		87	

11471000 POTTER VALLEY POWERHOUSE INTAKE NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°22'00", long 123°07'35", in SW 1/4 SW 1/4 sec.31, T.18 N., R.11 W., Mendocino County, Hydrologic Unit 18010103, in penstock of powerhouse of Pacific Gas & Electric Co., 1.5 mi southwest of Van Arsdale Dam, and 3.2 mi northwest of town of Potter Valley.

PERIOD OF RECORD.--December 1909 to current year. Prior to October 1922, monthly discharge only, published in WSP 1315-B. Prior to October 1931, published as Snow Mountain Water and Power Co.'s Tailrace near Potter Valley. October 1931 to September 1984, published as Potter Valley Powerhouse Tailrace near Potter Valley.

REVISED RECORDS.--WSP 1395: 1950. WDR CA-89-2: 1988.

GAGE.--Acoustic flowmeter in penstock of powerplant. Elevation of gage is 1,440 ft above sea level, from topographic map. Prior to Dec. 11, 1985, water-stage recorder and Parshall flume. See WSP 1929 for history of changes prior to Apr. 12, 1950.

REMARKS.--No estimated daily discharges. Water is diverted from Eel River above Van Arsdale Dam. After passing through powerhouse, part is used for irrigation in Potter Valley and remainder flows into East Fork Russian River.

COOPERATION.--Records collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD (1922 TO CURRENT YEAR).--Maximum daily discharge, 351 ft^3/s, Oct. 31, 1982; no flow at times in several years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	146	163	138	89	309	324	323	319	318	292	154	148
2	144	166	147	239	295	323	323	318	318	293	153	148
3	144	152	146	304	303	324	308	318	41	286	154	148
4	142	147	142	304	283	323	323	316	318	292	154	145
5	139	147	141	304	309	324	322	316	318	295	151	145
6	141	145	158	289	309	324	319	319	316	292	151	147
7	140	145	167	305	308	325	318	318	318	292	151	144
8	135	143	126	306	308	325	324	318	318	292	153	145
9	141	140	85	308	307	325	324	318	318	318	151	242
10	139	140	131	308	307	325	324	318	316	150	151	327
11	145	140	161	308	306	326	325	318	316	151	150	322
12	150	141	161	308	314	326	325	318	316	160	151	319
13	148	142	161	309	322	326	325	318	316	160	150	319
14	148	143	160	128	324	326	325	318	319	156	150	319
15	146	142	161	183	324	326	325	318	313	159	151	319
16	147	141	218	307	324	326	325	318	315	159	150	315
17	147	142	319	307	324	326	325	318	230	154	151	321
18	147	141	322	306	324	327	325	318	312	154	129	316
19	143	145	322	306	241	325	324	319	313	154	38	319
20	152	142	320	90	26	324	325	318	312	145	48	319
21	151	141	320	189	203	324	324	318	315	145	148	306
22	145	148	323	307	325	323	321	316	312	144	148	318
23	147	148	324	306	325	324	325	319	312	147	148	319
24	145	145	281	306	325	323	316	321	312	153	150	316
25	144	142	311	305	325	323	316	319	312	154	150	321
26	146	144	313	305	324	323	316	319	310	153	150	313
27	146	143	314	304	324	323	322	319	310	153	150	312
28	145	142	313	303	324	323	319	318	310	150	150	306
29	154	140	312	304	---	323	316	318	292	154	150	307
30	161	137	312	309	---	323	319	316	287	153	150	309
31	162	---	174	309	---	323	---	319	---	153	148	---
TOTAL	4530	4337	6983	8555	8342	10055	9651	9861	9033	6013	4433	8054
MEAN	146	145	225	276	298	324	322	318	301	194	143	268
MAX	162	166	324	309	325	327	325	321	319	318	154	327
MIN	135	137	85	89	26	323	308	316	41	144	38	144
AC-FT	8990	8600	13850	16970	16550	19940	19140	19560	17920	11930	8790	15980

11471000 POTTER VALLEY POWERHOUSE INTAKE NEAR POTTER VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	186	194	211	227	244	245	234	216	179	160	156	180
MAX	321	311	311	316	325	324	326	330	325	314	320	314
(WY)	1991	1963	1982	1982	1982	1993	1951	1982	1982	1953	1953	1967
MIN	.000	9.70	3.10	15.4	11.7	.000	18.9	39.0	38.5	11.0	2.29	2.67
(WY)	1960	1934	1934	1944	1977	1950	1977	1977	1920	1920	1920	1920

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1910 - 1993	
ANNUAL TOTAL	68117		89847			
ANNUAL MEAN	186		246		203	
HIGHEST ANNUAL MEAN					305	1967
LOWEST ANNUAL MEAN					84.0	1920
HIGHEST DAILY MEAN	324	Mar 14	327	Mar 18	351	Oct 31 1982
LOWEST DAILY MEAN	30	Feb 20	26	Feb 20	.00	Jul 31 1910
ANNUAL SEVEN-DAY MINIMUM	92	Sep 1	116	Aug 18	.00	Aug 7 1913
ANNUAL RUNOFF (AC-FT)	135100		178200		147000	
10 PERCENT EXCEEDS	321		324		312	
50 PERCENT EXCEEDS	147		306		215	
90 PERCENT EXCEEDS	133		143		56	

11471099 POTTER VALLEY POWERHOUSE TAILRACE NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°21'42", long 123°07'38", in SW 1/4 NW 1/4 sec.6, T.17 N., R.11 W., Mendocino County, Hydrologic Unit 18010103, 100 ft downstream from powerhouse of Pacific Gas and Electric Co., 1.8 mi southwest of Van Arsdale Dam, and 2.9 mi northwest of town of Potter Valley.

PERIOD OF RECORD.--October 1987 to current year. October 1931 to September 1984, record published for Potter Valley Powerhouse Intake (station 11471000) not equivalent because diversion for irrigation is included.

GAGE.--Discharge computed as difference between Potter Valley Powerhouse Intake (station 11471000) and the combined flows of Potter Valley Irrigation District East Canal and Potter Valley Irrigation District West Canal. Elevation of tailrace is 1,020 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Flow represents inflow into the Russian River basin after passing through powerhouse.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 326 ft^3/s, Mar. 16, 1993; no flow Apr. 4, 5, and July 18-20, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	160	138	88	307	322	322	317	318	265	113	117
2	133	164	146	237	293	321	322	316	318	263	112	121
3	139	151	146	302	301	322	307	316	41	256	113	124
4	141	147	142	299	281	321	322	314	318	261	116	121
5	138	147	141	303	308	322	321	314	318	263	114	121
6	137	144	156	285	308	322	318	317	316	259	116	123
7	135	145	165	303	307	323	317	316	318	252	117	116
8	129	143	122	305	307	323	323	316	318	254	118	118
9	123	140	84	306	306	323	323	316	318	276	129	212
10	122	140	130	306	306	323	323	317	316	110	122	301
11	133	140	160	306	305	324	324	317	316	115	121	300
12	142	141	161	306	312	324	324	318	316	123	124	299
13	134	142	161	306	319	324	324	318	316	118	122	299
14	130	143	159	126	321	324	323	318	317	117	122	299
15	112	142	160	181	321	325	323	318	308	121	122	298
16	112	141	215	305	321	326	323	318	308	121	126	282
17	129	142	317	305	321	325	323	316	224	119	130	291
18	137	141	320	304	321	325	323	308	307	123	114	295
19	131	145	319	303	237	323	322	309	301	127	19	305
20	139	142	318	78	26	323	323	314	302	118	26	305
21	147	141	318	184	200	323	322	312	301	121	117	291
22	144	148	320	303	322	322	319	313	288	116	120	299
23	144	148	321	303	322	322	323	318	283	116	120	302
24	142	145	279	303	322	321	315	311	282	119	117	300
25	141	142	309	303	322	321	315	315	284	123	115	305
26	143	144	311	303	321	321	314	319	284	121	116	297
27	143	143	312	301	321	321	320	319	284	121	115	292
28	142	142	310	302	322	321	317	318	285	111	113	287
29	151	140	309	303	---	321	315	318	264	114	112	285
30	158	137	310	307	---	321	317	316	264	112	119	285
31	159	---	165	307	---	321	---	319	---	112	117	---
TOTAL	4238	4330	6924	8473	8280	10000	9607	9791	8733	4947	3477	7390
MEAN	137	144	223	273	296	323	320	316	291	160	112	246
MAX	159	164	321	307	322	326	324	319	318	276	130	305
MIN	112	137	84	78	26	321	307	308	41	110	19	116
AC-FT	8410	8590	13730	16810	16420	19830	19060	19420	17320	9810	6900	14660

11471099 POTTER VALLEY POWERHOUSE TAILRACE NEAR POTTER VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	191	168	180	214	232	268	220	191	157	111	97.1	156
MAX	311	245	292	291	300	323	320	316	291	160	112	282
(WY)	1991	1991	1989	1989	1990	1993	1993	1993	1993	1993	1993	1990
MIN	79.3	90.1	79.6	35.8	45.0	136	53.7	97.0	90.8	74.7	81.5	82.1
(WY)	1989	1988	1991	1991	1991	1988	1990	1988	1989	1990	1988	1988

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1988 - 1993	
ANNUAL TOTAL	62177		86190			
ANNUAL MEAN	170		236		182	
HIGHEST ANNUAL MEAN					236	1993
LOWEST ANNUAL MEAN					141	1988
HIGHEST DAILY MEAN	324	Mar 14	326	Mar 16	326	Mar 16 1993
LOWEST DAILY MEAN	30	Feb 20	19	Aug 19	.00	Apr 4 1990
ANNUAL SEVEN-DAY MINIMUM	67	Aug 29	90	Aug 18	3.7	Jul 16 1990
ANNUAL RUNOFF (AC-FT)	123300		171000		131800	
10 PERCENT EXCEEDS	321		322		316	
50 PERCENT EXCEEDS	140		298		141	
90 PERCENT EXCEEDS	97		118		73	

11471500 EEL RIVER AT VAN ARSDALE DAM, NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°23'19", long 123°06'54", in NE 1/4 sec.30, T.18 N., R.11 W, Mendocino County, Hydrologic Unit 18010103, on left bank 1,000 ft downstream from Van Arsdale Dam and 4.6 mi north of town of Potter Valley.

DRAINAGE AREA.--349 mi^2.

PERIOD OF RECORD.--November 1909 to September 1922 (combined monthly discherge only, of Eel River at this ststion and Snow Mountain Water and Power Co.'s tailrece neer Potter Valley), October 1922 to current yesr. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1929, published se South Eel River at Van Arsdale Dam, near Potter Velley.

REVISED RECORDS.--WSP 1315-B: 1913, 1920-23, 1925-27. WSP 1395: 1923(M), 1938.

GAGE.--Water-stage recorder. Elevation of gage is 1,400 ft above see level, from topographic map. Nov. 18, 1909, to Mar. 3, 1927, recorder in reservoir 800 ft upstream from Van Arsdale Dam at different datum. Oct. 1, 1927, to Feb. 28, 1937, nonrecording gege et present site and detum.

REMARKS.--No estimated daily discharges. Flow regulated by Lake Pillsbury (station 11470000) 11 mi upstream. Low flows may be further regulated st Van Arsdale Dam by celibrated getes in dam and fish ladder. Water is diverted from Van Arsdale Reservoir through tunnel to Potter Valley Powerhouse Intake (station 11471000), after which part is used for irrigation and remainder flows into East Fork Russian River (see station 11471099). Records given represent only flow in the Eel River.

COOPERATION.--Records collected by Pecific Gas and Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,100 ft^3/s, Dec. 22, 1964, gage height, 33.9 ft from floodmarks; no flow st times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,600 ft^3/s, Jan. 20, gage height, 26.66 ft; minimum daily, 5.1 ft^3/s, June 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	8.3	8.3	9430	994	1130	814	296	1340	6.6	6.8	6.8
2	6.3	8.2	8.2	3090	879	1080	638	341	1090	6.6	6.6	6.8
3	6.2	8.3	8.2	1430	771	1170	355	692	741	6.6	6.6	6.9
4	6.2	8.2	8.2	899	706	1280	335	537	673	6.6	7.9	6.8
5	5.9	8.2	8.2	683	792	1100	253	383	673	6.6	7.2	6.8
6	6.4	8.2	110	640	1030	1080	139	290	645	6.7	7.1	6.9
7	6.4	8.3	169	2030	1010	1140	140	288	581	6.6	7.1	6.9
8	18	8.2	745	2030	1490	1170	174	308	394	6.6	7.0	6.9
9	6.4	8.2	977	1400	2000	1160	185	301	284	6.6	6.8	6.9
10	6.5	8.2	1040	1040	1690	1140	173	287	168	6.7	6.9	6.9
11	6.4	8.3	702	781	2390	1040	164	281	31	6.7	5.4	6.9
12	6.4	8.3	416	641	1920	993	145	271	65	6.7	9.0	6.8
13	6.4	8.3	264	903	1480	987	129	266	60	6.6	10	6.7
14	6.5	8.2	221	4000	1210	1030	127	260	22	6.5	9.7	6.6
15	6.4	8.2	297	3590	1040	1070	121	277	23	6.5	9.4	6.6
16	6.4	8.3	266	3000	900	1040	111	210	28	6.6	7.8	6.6
17	6.4	8.3	268	2240	930	2960	362	115	33	6.5	6.6	6.7
18	6.4	8.2	172	1650	2070	3790	727	117	13	6.5	6.9	6.8
19	6.5	8.2	118	1290	5950	2750	816	107	14	6.6	8.7	6.8
20	6.4	8.3	137	16300	6540	2000	797	82	13	6.7	9.8	6.8
21	6.3	8.3	125	12500	3890	1590	780	69	13	6.7	6.9	6.8
22	6.4	8.3	110	9360	2800	1340	762	61	7.9	6.7	6.8	6.7
23	6.4	8.3	107	5090	3300	1400	749	61	8.2	6.6	6.6	6.6
24	6.4	8.2	151	3200	2940	2330	659	74	6.7	6.7	6.8	6.8
25	6.3	8.2	117	2280	2180	1920	547	78	5.4	6.7	6.7	6.7
26	6.3	8.3	107	1830	1750	1500	352	215	25	6.6	6.7	6.8
27	6.3	8.3	105	1600	1440	1250	144	595	6.1	6.5	6.7	6.7
28	6.2	8.2	289	1480	1250	1070	82	420	11	6.7	6.7	6.7
29	18	8.3	396	1330	---	928	76	418	5.1	6.6	6.7	6.7
30	42	8.3	302	1180	---	833	134	432	7.6	6.5	6.6	6.7
31	26	---	5380	1060	---	780	---	1250	---	6.7	6.7	---
TOTAL	275.3	247.6	13132.1	97977	55342	44051	10990	9382	6987.0	205.1	227.2	203.1
MEAN	8.88	8.25	424	3161	1976	1421	366	303	233	6.62	7.33	6.77
MAX	42	8.3	5380	16300	6540	3790	816	1250	1340	6.7	10	6.9
MIN	5.9	8.2	8.2	640	706	780	76	61	5.1	6.5	5.4	6.6
AC-FT	546	491	26050	194300	109800	87380	21800	18610	13860	407	451	403

11471500 EEL RIVER AT VAN ARSDALE DAM, NEAR POTTER VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	12.0	134	712	1264	1470	1001	558	150	21.4	4.91	5.46	5.15
MAX	153	2389	5249	6293	8904	5492	3863	1174	233	13.4	54.1	27.9
(WY)	1963	1974	1965	1970	1986	1983	1982	1983	1993	1990	1980	1959
MIN	.86	1.30	1.78	2.00	3.62	2.00	2.00	2.00	1.07	1.06	1.09	1.10
(WY)	1953	1953	1937	1924	1977	1924	1924	1924	1931	1931	1931	1931

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1923 - 1993	
ANNUAL TOTAL	54511.4		239019.4			
ANNUAL MEAN	149		655		435	
HIGHEST ANNUAL MEAN					1546	1983
LOWEST ANNUAL MEAN					3.46	1977
HIGHEST DAILY MEAN	5630	Feb 20	16300	Jan 20	49500	Dec 22 1964
LOWEST DAILY MEAN	5.9	Oct 5	5.1	Jun 29	.00	Sep 13 1953
ANNUAL SEVEN-DAY MINIMUM	6.2	Sep 29	6.2	Oct 1	.16	Dec 5 1965
INSTANTANEOUS PEAK FLOW			27600	Jan 20	64100	Dec 22 1964
INSTANTANEOUS PEAK STAGE			26.66	Jan 20	33.90	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	108100		474100		315200	
10 PERCENT EXCEEDS	351		1620		1040	
50 PERCENT EXCEEDS	8.2		76		8.6	
90 PERCENT EXCEEDS	6.4		6.5		2.0	

11472150 EEL RIVER NEAR DOS RIOS, CA

LOCATION.--Lat 39°37'30", long 123°20'25", in SW 1/4 SW 1/4 sec.32, T.21 N., R.13 W., Mendocino County, Hydrologic Unit 18010103, on left bank 1,100 ft upstream from Outlet Creek and 6.3 mi south of Dos Rios.

DRAINAGE AREA.--528 mi^2.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,001.28 ft above sea level.

REMARKS.--Records fair except for summer months, which are poor. Flow partly regulated by Lake Pillsbury (station 11470000) 40 mi upstream and by diversion through Potter Valley Powerhouse Intake (station 11471000).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,100 ft^3/s, Feb. 17, 1986, gage height, 35.54 ft, from rating curve extended above 26,000 ft^3/s on basis of slope-area measurement at gage height 33.64 ft; no flow for many days in 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 45.52 ft, from information by local resident, discharge, 100,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45,200 ft^3/s, Jan. 20, gage height, 26.58 ft; minimum daily, 7.6 ft^3/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e7.6	150	25	16300	2070	1760	1540	453	2910	116	33	14
2	e8.5	138	36	5990	1940	1670	1430	497	2160	109	30	14
3	e9.0	78	50	3200	1860	1760	867	718	1490	105	28	14
4	e9.2	49	45	2270	1750	1720	973	960	1470	102	27	13
5	e9.4	39	42	1850	1740	1610	850	628	1700	96	25	13
6	e8.8	34	195	1890	2030	1550	658	486	1760	95	25	12
7	e8.3	28	900	3970	2070	1580	564	438	1330	92	21	12
8	9.6	25	3320	3760	2310	1590	583	424	1020	88	19	12
9	9.4	24	4940	2980	3090	1570	714	416	775	81	19	12
10	12	22	5790	2500	2950	1540	669	400	670	78	19	13
11	16	22	3570	2020	4170	1480	595	384	461	72	18	18
12	11	22	2130	1710	3520	1390	538	380	385	68	18	13
13	9.4	21	1170	2570	2910	1370	478	366	403	64	18	12
14	9.3	21	753	6870	2550	1420	448	363	333	63	17	11
15	9.3	21	587	5750	2300	1480	424	365	297	61	16	12
16	8.8	21	552	4980	2100	1500	396	345	281	60	16	12
17	8.3	21	534	3880	2190	5890	1340	283	268	58	16	12
18	8.3	21	533	3110	3420	5960	1730	243	251	56	15	12
19	8.3	22	374	2710	8310	4340	1560	241	224	54	14	12
20	11	24	427	31200	9820	3200	1400	267	212	50	14	12
21	21	26	460	23300	6650	2530	1310	250	198	50	15	12
22	23	134	367	15800	5250	2120	1230	223	188	48	17	12
23	16	60	312	8380	6680	2610	1300	206	173	47	17	12
24	13	56	283	5450	5120	4300	1340	196	168	45	15	12
25	12	41	307	4120	3730	3340	1070	220	159	44	15	13
26	12	35	254	3470	2880	2590	823	662	149	43	15	13
27	11	31	237	3080	2340	2130	565	1290	156	40	15	13
28	11	29	994	2820	1990	1840	434	929	135	38	15	13
29	26	28	2310	2580	---	1580	375	739	132	36	14	26
30	104	26	1720	2370	---	1400	351	998	123	35	14	16
31	136	---	15600	2210	---	1310	---	3170	---	35	14	---
TOTAL	576.5	1269	48817	183090	97740	70130	26555	17540	19981	2029	574	397
MEAN	18.6	42.3	1575	5906	3491	2262	885	566	666	65.5	18.5	13.2
MAX	136	150	15600	31200	9820	5960	1730	3170	2910	116	33	26
MIN	7.6	21	25	1710	1740	1310	351	196	123	35	14	11
AC-FT	1140	2520	96830	363200	193900	139100	52670	34790	39630	4020	1140	787

e Estimated.

11472150 EEL RIVER NEAR DOS RIOS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	27.2	546	1461	2808	2427	2054	859	266	77.6	16.5	10.7	9.58
MAX	102	4033	4854	10530	11430	6998	5330	1423	666	65.5	57.3	22.0
(WY)	1980	1974	1982	1970	1986	1983	1982	1983	1993	1993	1980	1986
MIN	3.72	10.4	8.76	26.4	34.1	82.0	21.2	19.2	5.28	.080	.031	3.27
(WY)	1967	1979	1977	1977	1977	1977	1977	1977	1977	1977	1977	1970

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1967 - 1993	
ANNUAL TOTAL	158504.3		468698.5			
ANNUAL MEAN	433		1284		874	
HIGHEST ANNUAL MEAN					2221	1983
LOWEST ANNUAL MEAN					18.4	1977
HIGHEST DAILY MEAN	15600	Dec 31	31200	Jan 20	62900	Feb 17 1986
LOWEST DAILY MEAN	6.1	Aug 20	7.6	Oct 1	.00	Jul 7 1977
ANNUAL SEVEN-DAY MINIMUM	6.3	Aug 19	8.7	Oct 1	.00	Jul 7 1977
INSTANTANEOUS PEAK FLOW			45200	Jan 20	70100	Feb 17 1986
INSTANTANEOUS PEAK STAGE			26.58	Jan 20	35.54	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	314400		929700		633300	
10 PERCENT EXCEEDS	1150		3200		2210	
50 PERCENT EXCEEDS	41		268		57	
90 PERCENT EXCEEDS	7.2		12		6.4	

11472200 OUTLET CREEK NEAR LONGVALE, CA

LOCATION.--Lat 39°37'05", long 123°21'20", in NE 1/4 sec.1, T.20 N., R.14 W., Mendocino County, Hydrologic Unit 18010103, on right bank 0.2 mi downstream from Bloody Run Creek, 0.9 mi upstream from mouth, and 6.9 mi northeast of Longvale.

DRAINAGE AREA.--161 mi^2.

PERIOD OF RECORD.--October 1956 to current year.

REVISED RECORDS.--WSP 1929: 1958(M), 1960(M), 1963(M).

GAGE.--Water-stage recorder. Datum of gage is 1,018.14 ft above sea level.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,900 ft^3/s, Dec. 22, 1964, gage height, 30.6 ft, from floodmarks, from rating curve extended above 17,000 ft^3/s on basis of slope-area measurement of peak flow; no flow at times during several years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 8	1815	9,510	11.82	Jan. 20	Unknown	*22,900	*18.61
Dec. 31	1345	16,800	15.79				

No flow Oct. 1-7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	299	e13	6120	e370	411	599	178	1400	30	5.0	2.0
2	.00	217	e33	2830	e340	450	519	157	804	27	4.4	1.8
3	.00	151	e27	1610	e290	538	416	196	545	24	4.0	1.8
4	.00	107	e21	976	e275	405	759	242	822	23	3.6	1.8
5	.00	99	e67	701	e270	337	551	179	808	22	3.4	1.8
6	.00	94	e190	1000	e350	297	440	148	674	21	3.1	1.5
7	.00	60	e450	2300	e300	264	379	128	505	19	3.4	1.4
8	.14	41	e1500	1620	e340	238	417	113	394	18	3.4	1.3
9	.83	30	4040	1280	e350	215	512	102	315	17	3.4	1.4
10	.87	27	5170	1100	455	204	500	91	257	16	3.4	1.6
11	.91	24	3270	843	1540	195	402	84	215	15	3.4	1.6
12	1.0	19	2250	696	938	174	339	79	184	13	3.5	1.6
13	.97	19	1400	1790	595	170	296	77	160	12	3.9	1.6
14	.97	18	e1000	3320	434	168	264	73	140	12	3.7	1.8
15	.97	17	e850	2340	360	253	240	68	123	11	3.4	2.0
16	.95	16	e540	2220	307	292	211	62	111	11	e3.1	2.0
17	.87	16	e350	1420	559	4140	1630	55	96	9.9	e2.9	1.8
18	.97	e17	e256	990	1170	2760	1190	51	86	9.8	e2.8	1.6
19	1.1	e18	201	e2000	3140	1470	733	51	76	8.9	e2.8	1.6
20	1.8	e20	416	e15000	2970	896	528	77	67	8.9	2.9	1.8
21	5.0	e65	344	e7000	2560	611	437	78	60	8.5	3.2	1.8
22	5.4	e190	246	e4500	2290	476	355	66	55	8.3	3.3	1.8
23	3.9	e105	193	e2100	3380	1040	514	56	50	8.1	2.7	1.6
24	3.0	e68	160	e1700	2020	1540	651	51	46	7.6	2.0	1.5
25	2.3	e47	136	e1200	1300	1030	458	51	41	7.2	1.8	1.5
26	2.0	e38	116	e880	864	700	371	504	38	6.8	1.8	1.5
27	1.8	e30	102	e680	615	528	309	649	36	6.5	1.8	1.6
28	1.8	e22	978	e580	484	450	263	510	33	5.8	1.8	1.6
29	7.6	e18	1860	e490	---	376	227	316	32	5.9	1.8	1.7
30	79	e15	1480	e440	---	317	200	835	30	5.8	1.6	1.7
31	198	---	10900	e410	---	329	---	1660	---	5.6	1.7	---
TOTAL	322.15	1907	38559	70136	28866	21274	14710	6987	8203	404.6	93.0	50.1
MEAN	10.4	63.6	1244	2262	1031	686	490	225	273	13.1	3.00	1.67
MAX	198	299	10900	15000	3380	4140	1630	1660	1400	30	5.0	2.0
MIN	.00	15	13	410	270	168	200	51	30	5.6	1.6	1.3
AC-FT	639	3780	76480	139100	57260	42200	29180	13860	16270	803	184	99

e Estimated.

11472200 OUTLET CREEK NEAR LONGVALE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	42.5	345	837	1153	1104	818	379	94.7	27.4	3.96	1.43	2.02
MAX	555	1913	5390	3786	3948	2359	1741	463	273	13.1	4.11	10.6
(WY)	1963	1974	1965	1970	1986	1975	1963	1990	1993	1993	1983	1957
MIN	.000	1.50	4.03	6.78	21.5	38.4	18.5	12.0	2.23	.048	.000	.000
(WY)	1989	1991	1977	1991	1991	1988	1977	1977	1977	1977	1977	1988

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1957 - 1993	
ANNUAL TOTAL	101795.66		191511.85			
ANNUAL MEAN	278		525		398	
HIGHEST ANNUAL MEAN					808	1983
LOWEST ANNUAL MEAN					22.0	1977
HIGHEST DAILY MEAN	10900	Dec 31	15000	Jan 20	52500	Dec 22 1964
LOWEST DAILY MEAN	.00	Jul 30	.00	Oct 1	.00	Aug 15 1959
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 30	.00	Oct 1	.00	Jul 15 1977
INSTANTANEOUS PEAK FLOW			22900	Jan 20	77900	Dec 22 1964
INSTANTANEOUS PEAK STAGE			18.61	Jan 20	30.60	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	201900		379900		288100	
10 PERCENT EXCEEDS	547		1440		1030	
50 PERCENT EXCEEDS	20		102		28	
90 PERCENT EXCEEDS	.00		1.7		.95	

11473900 MIDDLE FORK EEL RIVER NEAR DOS RIOS, CA

LOCATION.--Lat 39°42'23", long 123°19'27", in NE 1/4 SE 1/4 sec.5, T.21 N., R.13 W., Mendocino County, Hydrologic Unit 18010104, on right bank 0.6 mi upstream from Eestman Creek, 1.7 mi southeast of Dos Rios, and 1.9 mi upstream from mouth.

DRAINAGE AREA.--745 mi^2.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 901.58 ft above sea level.

REMARKS.--Records fair except for estimated daily discherges, which ere poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 93,100 ft^3/s, Feb. 17, 1986, gage height, 27.41 ft, from rsting curve extended above 52,000 ft^3/s; minimum daily, 2.4 ft^3/s, Sept. 1, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greeter than base discharge of 25,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	2315	*33,700	*19.17				

Minimum daily, 4.9 ft^3/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	357	60	8470	2480	2490	3080	2280	5810	499	120	e35
2	5.6	325	63	2670	2350	2620	3010	2350	3640	472	110	e36
3	7.8	195	75	1770	2270	3120	2880	2600	2800	451	105	e40
4	8.6	116	68	1420	2230	3010	3420	2720	2990	427	99	e38
5	9.8	89	63	1270	3010	2890	3390	2340	3700	402	95	e34
6	9.8	76	111	1500	3520	3110	3070	2190	3100	383	89	e32
7	9.1	66	306	5460	3200	3520	2880	2090	2740	363	84	e30
8	8.6	60	2330	3370	4130	3730	2950	1910	2440	342	79	e31
9	8.6	55	8290	2440	4550	3850	3410	1790	2220	322	76	e31
10	8.6	51	10900	2050	3920	4190	3270	1840	2030	304	72	e31
11	8.5	47	5970	1650	5100	4150	3060	1920	1870	289	69	e31
12	8.4	44	3080	1440	3970	4020	2840	1800	1720	276	67	e32
13	8.4	41	2070	2440	3410	4170	2680	1620	1590	260	64	e36
14	8.2	40	1670	8730	3080	4560	2600	1450	1480	248	61	e39
15	8.1	39	1480	4850	2840	4780	2690	1370	1400	241	58	e37
16	8.1	37	1230	4470	2640	4730	2750	1370	1300	234	54	e34
17	8.2	37	1240	3440	2700	15500	4880	1420	1200	227	53	e32
18	8.3	38	1110	2810	4020	12200	5550	1440	1130	218	50	e33
19	8.3	41	922	2500	9520	6910	3570	1400	1070	208	e49	e35
20	11	56	966	24200	7710	5110	2950	1660	1010	199	e50	e35
21	20	64	1040	18400	5180	4270	2710	1640	931	191	e50	e34
22	30	186	895	16900	4480	3850	2530	1420	871	184	e49	e32
23	28	187	795	7820	6800	5790	2470	1320	806	179	e45	e30
24	24	108	776	5450	4650	9330	2660	1270	752	178	e37	e30
25	21	88	775	4380	3540	5310	2390	1420	705	170	e36	e31
26	23	78	734	3820	3050	4120	2380	1770	671	159	e36	e32
27	22	72	696	3530	2760	3550	2250	2700	634	152	e36	e32
28	22	73	1600	3250	2600	3130	2190	2240	600	145	e34	e34
29	34	69	2470	2990	---	2890	2200	1820	569	139	e32	e33
30	258	64	1700	2820	---	2770	2330	1950	530	132	e35	e33
31	276	---	13200	2660	---	2730	---	6440	---	128	e38	---
TOTAL	924.9	2799	66685	158970	109710	146400	89040	61550	52309	8122	1932	1003
MEAN	29.8	93.3	2151	5128	3918	4723	2968	1985	1744	262	62.3	33.4
MAX	276	357	13200	24200	9520	15500	5550	6440	5810	499	120	40
MIN	4.9	37	60	1270	2230	2490	2190	1270	530	128	32	30
AC-FT	1830	5550	132300	315300	217600	290400	176600	122100	103800	16110	3830	1990

e Estimated.

11473900 MIDDLE FORK EEL RIVER NEAR DOS RIOS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	112	1292	2466	3970	3446	3356	2033	1186	386	76.6	24.7	24.9
MAX	475	6823	7270	13540	12870	8622	6632	3852	1744	262	62.3	172
(WY)	1980	1974	1984	1970	1986	1983	1982	1983	1993	1993	1993	1986
MIN	10.2	28.5	30.5	94.3	172	384	333	241	82.5	13.2	4.55	4.82
(WY)	1991	1991	1977	1977	1977	1977	1977	1977	1977	1977	1977	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1966 - 1993	
ANNUAL TOTAL	275575.6		699444.9			
ANNUAL MEAN	753		1916		1523	
HIGHEST ANNUAL MEAN					3351	1983
LOWEST ANNUAL MEAN					121	1977
HIGHEST DAILY MEAN	13200	Dec 31	24200	Jan 20	74000	Feb 17 1986
LOWEST DAILY MEAN	3.3	Aug 31	4.9	Oct 1	2.4	Sep 1 1985
ANNUAL SEVEN-DAY MINIMUM	3.5	Aug 29	7.9	Oct 1	2.8	Aug 29 1985
INSTANTANEOUS PEAK FLOW			33700	Jan 20	93100	Feb 17 1986
INSTANTANEOUS PEAK STAGE			19.17	Jan 20	27.41	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	546600		1387000		1103000	
10 PERCENT EXCEEDS	2130		4420		3750	
50 PERCENT EXCEEDS	168		1130		335	
90 PERCENT EXCEEDS	6.3		32		15	

11474780 KEKAWAKA CREEK BELOW KEKAWAKA CREEK POWERHOUSE DIVERSION, NEAR ZENIA, CA

LOCATION.--Let 40°06'37", long 123°27'59", in SW 1/4 SE 1/4 sec.14, T.4 S., R.6 E., Trinity County, Hydrologic Unit 18010105, on left bank approximately 200 ft downstream from diversion dam, 3.6 mi upstream from confluence with Eel River, and 6.7 mi south of Zenia.
DRAINAGE AREA.--20.7 mi^2.
PERIOD OF RECORD.--January 1990 to current year.
GAGE.--Water-stage recorder, and 120° V-notch weir. Elevation of gege is 1,480 ft above sea level, from topogrephic map.
REMARKS.--Water is diverted from creek upstream from gege to Kekawaka Creek Powerplant (station 11474750). See following page for records of combined discharge of creek end powerplent.
COOPERATION.--Records provided by STS Hydro Power Ltd., under generel supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.
EXTREMES FOR PERIOD OF RECORD.--Creek only, maximum discharge (estimated), 1,800 ft^3/s, Jan. 20, 1993, gage height, 8.34 ft; no flow, Sept. 3-13, 1992.
Combined flow: Maximum discharge (estimated), 1,800 ft^3/s, Jen. 20, 1993; no flow, Sept. 3-13, 1992.
EXTREMES FOR CURRENT YEAR.--Creek only, maximum diacherge (estimated), 1,800 ft^3/s, Jan. 20, gege height, 8.34 ft; minimum deily, 0.04 ft^3/s, Oct. 1-7.
Combined flow: Maximum discharge, 1,800 ft^3/s, Jen. 20; minimum daily, 0.04 ft^3/s, Oct. 1-7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	8.6	2.0	265	3.6	22	11	3.4	128	3.1	2.6	1.3
2	.04	7.5	3.6	95	19	26	8.0	3.3	70	3.1	2.4	1.1
3	.04	4.8	4.7	24	17	41	5.4	4.8	33	3.1	2.2	1.1
4	.04	3.2	3.5	7.7	19	16	50	5.2	48	3.1	2.2	1.1
5	.04	2.5	3.0	3.8	5.2	9.7	23	3.5	42	3.4	2.1	1.2
6	.04	2.1	26	41	3.3	6.4	9.6	3.3	20	3.1	2.1	1.3
7	.04	1.8	4.5	221	3.2	4.2	5.9	3.2	7.7	3.6	2.1	1.2
8	.07	1.7	143	107	3.4	3.2	5.4	3.2	3.6	4.6	2.2	1.0
9	.10	1.5	135	54	3.9	3.6	4.7	3.2	3.4	6.0	2.0	.89
10	.13	1.5	250	25	9.7	4.6	13	3.3	3.4	5.7	2.0	.85
11	.16	1.4	117	6.5	57	3.4	6.1	3.3	3.3	5.4	2.0	.94
12	.20	1.4	30	4.9	19	3.3	3.9	3.3	3.3	5.3	2.0	1.1
13	.23	1.4	3.8	87	6.8	3.2	3.6	3.2	3.3	5.2	1.9	1.0
14	.27	1.3	3.2	306	3.4	3.6	5.9	3.2	3.2	5.2	1.9	.87
15	.32	1.3	3.2	208	3.1	3.6	4.1	3.2	3.3	5.1	2.1	1.0
16	.34	1.4	3.1	216	3.1	25	3.4	3.2	3.2	5.0	2.0	1.2
17	.33	1.6	3.2	108	7.8	168	38	3.2	3.2	4.8	1.8	1.2
18	.35	1.4	3.1	56	59	141	39	3.2	3.2	4.5	1.7	1.2
19	.38	3.4	3.1	110	282	69	17	3.2	3.2	4.4	1.9	1.2
20	.60	3.6	3.2	e1150	191	30	7.4	3.2	3.2	4.3	2.4	1.2
21	1.8	3.2	3.2	545	118	13	5.6	3.2	3.2	4.1	2.0	1.1
22	1.1	6.1	3.1	444	132	12	4.0	3.2	5.3	4.0	1.8	.98
23	.81	4.6	3.1	228	225	102	18	3.2	3.2	4.1	1.6	.81
24	.72	3.9	3.1	116	147	101	28	3.2	3.9	3.9	1.7	.79
25	.66	3.3	3.1	48	83	53	11	3.2	3.2	3.7	1.6	.76
26	.64	2.9	3.1	29	47	21	9.0	97	3.2	3.5	1.5	.78
27	.68	2.7	3.1	18	23	9.9	4.8	47	3.2	3.2	1.4	.75
28	.70	2.6	3.9	13	14	6.1	3.6	8.9	3.2	3.1	1.3	.71
29	2.0	2.4	35	8	---	4.4	3.4	4.0	3.2	3.1	1.3	.68
30	4.5	2.2	23	11	---	3.3	3.4	156	3.2	3.1	1.2	.66
31	5.6	---	531	4.3	---	6.0	---	252	---	2.9	1.3	---
TOTAL	22.97	87.3	1362.9	4560.2	1508.5	918.5	355.2	649.5	426.3	126.7	58.3	29.97
MEAN	.74	2.91	44.0	147	53.9	29.6	11.8	21.0	14.2	4.09	1.88	1.00
MAX	5.6	8.6	531	1150	282	168	50	252	128	6.0	2.6	1.3
MIN	.04	1.3	2.0	3.8	3.1	3.2	3.4	3.2	3.2	2.9	1.2	.66
AC-FT	46	173	2700	9050	2990	1820	705	1290	846	251	116	59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

MEAN	.75	2.16	17.5	53.2	30.5	25.0	6.47	12.8	7.02	2.14	.72	.44
MAX	.83	2.91	44.0	147	53.9	45.2	11.8	21.1	14.2	4.09	1.88	1.00
(WY)	1991	1993	1993	1993	1993	1991	1993	1990	1993	1993	1993	1993
MIN	.68	1.31	3.48	5.08	8.02	8.52	3.36	4.39	1.90	.75	.036	.008
(WY)	1992	1991	1991	1991	1991	1990	1991	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1990 - 1993	
ANNUAL TOTAL	3948.63		10106.34			
ANNUAL MEAN	10.8		27.7		13.9	
HIGHEST ANNUAL MEAN					27.7	1993
LOWEST ANNUAL MEAN					6.47	1991
HIGHEST DAILY MEAN	531	Dec 31	1150	Jan 20	1150	Jan 20 1993
LOWEST DAILY MEAN	.00	Sep 3	.04	Oct 1	.00	Sep 3 1992
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 3	.04	Oct 1	.00	Sep 3 1992
INSTANTANEOUS PEAK FLOW			e1800	Jan 20	e1800	Jan 20 1993
INSTANTANEOUS PEAK STAGE			8.34	Jan 20	8.34	Jan 20 1993
ANNUAL RUNOFF (AC-FT)	7830		20050		10040	
10 PERCENT EXCEEDS	7.6		69		18	
50 PERCENT EXCEEDS	3.1		3.3		3.1	
90 PERCENT EXCEEDS	.01		.88		.20	

e Estimated.

11474781 KEKAWAKA CREEK BELOW KEKAWAKA CREEK POWERHOUSE DIVERSION, NEAR ZENIA, CA--Continued

KEKAWAKA CREEK AND KEKAWAKA CREEK POWERHOUSE,
COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	8.6	2.0	323	43	81	76	34	200	8.8	2.6	1.3
2	.04	9.2	3.6	152	37	102	72	31	142	8.4	2.4	1.1
3	.04	4.8	4.7	93	33	112	64	47	105	8.1	2.2	1.1
4	.04	3.2	3.5	71	32	92	126	54	115	7.7	2.2	1.1
5	.04	2.5	3.0	60	39	80	98	38	114	7.5	2.1	1.2
6	.04	2.1	37	105	35	71	78	34	92	6.9	2.1	1.3
7	.04	1.8	48	287	31	63	66	30	75	6.6	2.1	1.2
8	.07	1.7	197	181	37	55	63	28	63	6.3	2.2	1.0
9	.10	1.5	211	128	48	51	61	26	52	6.0	2.0	.89
10	.13	1.5	320	93	58	57	82	23	45	5.7	2.0	.85
11	.16	1.4	194	70	134	46	66	22	39	5.4	2.0	.94
12	.20	1.4	105	65	93	40	56	24	35	5.3	2.0	1.1
13	.23	1.4	61	161	72	36	49	24	31	5.2	1.9	1.0
14	.27	1.3	45	352	59	41	44	21	28	5.2	1.9	.87
15	.32	1.3	37	285	51	40	42	18	25	5.1	2.1	1.0
16	.34	1.4	28	293	44	74	36	17	23	5.0	2.0	1.2
17	.33	1.6	31	185	60	246	103	16	20	4.8	1.8	1.2
18	.35	1.4	25	134	136	219	116	15	18	4.5	1.7	1.2
19	.38	3.4	20	184	334	147	80	16	17	4.4	1.9	1.2
20	.60	3.6	26	e1160	257	106	69	20	16	4.3	2.4	1.2
21	1.8	3.2	28	545	195	83	62	16	15	4.1	2.0	1.1
22	1.1	9.6	23	448	209	70	53	15	15	4.0	1.8	.98
23	.81	5.7	19	234	303	178	77	14	13	4.1	1.6	.81
24	.72	3.9	17	148	224	179	96	14	13	3.9	1.7	.79
25	.66	3.3	15	118	161	124	76	14	11	3.7	1.6	.76
26	.64	2.9	13	91	125	96	73	144	11	3.5	1.5	.78
27	.68	2.7	12	78	100	78	59	119	11	3.2	1.4	.75
28	.70	2.6	52	67	86	66	51	77	10	3.1	1.3	.71
29	2.0	2.4	65	59	---	56	44	64	9.6	3.1	1.3	.68
30	4.5	2.2	53	53	---	48	38	228	9.2	3.1	1.2	.66
31	5.6	---	585	48	---	54	---	323	---	2.9	1.3	---
TOTAL	22.97	93.6	2283.8	6271	3036	2791	2076	1566	1372.8	159.9	58.3	29.97
MEAN	.74	3.12	73.7	202	108	90.0	69.2	50.5	45.8	5.16	1.88	1.00
MAX	5.6	9.6	585	1160	334	246	126	323	200	8.8	2.6	1.3
MIN	.04	1.3	2.0	48	31	36	36	14	9.2	2.9	1.2	.66
AC-FT	46	186	4530	12440	6020	5540	4120	3110	2720	317	116	59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

MEAN	.75	2.27	28.9	75.9	70.6	71.7	30.9	26.0	19.3	2.41	.72	.44
MAX	.83	3.12	73.7	202	108	98.5	69.2	50.5	45.8	5.16	1.88	1.00
(WY)	1991	1993	1993	1993	1993	1991	1993	1993	1993	1993	1993	1993
MIN	.68	1.31	3.48	6.26	17.1	48.6	7.49	5.78	1.90	.75	.036	.008
(WY)	1992	1991	1991	1991	1991	1992	1990	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1990 - 1993	
ANNUAL TOTAL	8101.43		19761.34			
ANNUAL MEAN	22.1		54.1		28.3	
HIGHEST ANNUAL MEAN					54.1	1993
LOWEST ANNUAL MEAN					14.0	1991
HIGHEST DAILY MEAN	585	Dec 31	1160	Jan 20	1160	Jan 20 1993
LOWEST DAILY MEAN	.00	Sep 3	.04	Oct 1	.00	Sep 3 1992
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 3	.04	Oct 1	.00	Sep 3 1992
INSTANTANEOUS PEAK FLOW			e1800	Jan 20	e1800	Jan 20 1993
ANNUAL RUNOFF (AC-FT)	16070		39200		20470	
10 PERCENT EXCEEDS	49		143		77	
50 PERCENT EXCEEDS	3.5		17		4.6	
90 PERCENT EXCEEDS	.01		.88		.20	

e Estimeted.

11475000 EEL RIVER AT FORT SEWARD, CA

LOCATION.--Let 40°13'05", long 123°37'54", in SE 1/4 NE 1/4 sec.8, T.3 S., R.5 E., Humboldt County, Hydrologic Unit 18010105, on right bank at downstream side of bridge, 1.0 mi southeast of Fort Seward, 1.9 mi upstream from Dobbyn Creek, and 11.8 mi northeast of Gerberville.

DRAINAGE AREA.--2,107 mi^2.

PERIOD OF RECORD.--September 1955 to current year. Prior to October 1965, published as "at Alderpoint."

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 217.26 ft above sea level. Prior to Dec. 22, 1964, at site 7.5 mi upstream at datum 46.55 ft higher. Feb. 2 to Sept. 30, 1965, at site 7.7 mi upstream at datum 49.42 ft higher.

REMARKS.--Records fair. Flow slightly regulated by Lake Pillsbury (station 11470000) 99 mi upstream and by diversion through Potter Valley Powerhouse Intake (station 11471000).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 561,000 ft^3/s, Dec. 22, 1964, gage height, 82.6 ft, from floodmarks, present site and datum, 87.2 ft, from floodmarks, site and datum then in use, from rating curve extended above 110,000 ft^3/s on basis of slope-area measurement at gage height 72.5 ft; minimum daily, 1.2 ft^3/s, Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 41,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 10	2145	50,800	26.04	Feb. 19	2245	44,300	24.24
Jan. 1	0100	100,000	33.60	Mar. 17	1830	44,600	24.30
Jan. 20	2345	*195,000	*46.49				

Minimum daily, 11 ft^3/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	1750	268	69300	6140	7890	7440	3850	17900	771	201	70
2	13	1820	274	25800	5540	7750	7740	3900	12800	727	193	68
3	15	1240	345	14500	5150	9080	6330	4130	8960	688	181	67
4	15	713	449	9490	4810	8380	7520	5780	7930	653	170	63
5	17	482	384	7250	5030	7370	8250	4470	11000	627	161	62
6	22	377	437	6210	7110	6970	6450	3740	9510	593	151	59
7	24	318	3220	20000	6580	7120	5440	3450	7600	561	143	59
8	26	268	7890	18900	6920	7180	5030	3170	6160	527	137	59
9	26	234	31900	13700	9820	7000	6140	2910	5050	503	129	58
10	25	210	32800	11100	9590	7230	6350	2800	4240	472	121	57
11	24	192	27300	8640	13800	7070	5700	2870	3640	447	117	55
12	23	178	15400	6680	13100	6590	4820	2860	3130	424	117	56
13	23	164	8340	8590	9840	6400	4310	2630	2810	404	115	55
14	22	157	5310	28200	7940	6780	3960	2360	2590	385	112	53
15	24	150	4020	25100	6610	7480	3800	2140	2330	372	110	52
16	26	145	3250	24500	5710	7930	3840	2090	2160	361	110	51
17	23	147	2950	18600	5280	29900	7910	2070	1980	353	108	52
18	22	142	3200	14200	9330	37800	16000	e2100	1820	348	105	52
19	22	157	2550	10900	22300	24900	10700	e2300	1680	335	101	53
20	23	166	2360	89100	35900	18000	8390	e2350	1570	319	102	55
21	29	236	3000	119000	25000	14200	7380	e2300	1470	308	104	56
22	31	523	2620	75900	21000	11600	6430	e1980	1370	300	101	55
23	48	1330	2220	39200	30000	13100	6330	e2000	1280	290	99	54
24	71	759	1990	25500	22600	24000	8510	e2100	1190	279	99	54
25	76	512	1870	18900	16800	17700	6530	e2600	1110	275	94	52
26	65	411	1790	15000	13300	13700	5750	3350	1020	265	90	52
27	57	362	1640	12500	10700	10800	5040	7780	951	254	85	51
28	51	324	3030	10700	9080	8980	4380	6150	905	238	82	51
29	77	314	9650	9220	---	7600	4030	4370	853	223	79	50
30	188	295	8600	7940	---	6670	3980	5990	817	212	76	54
31	1300	---	48400	6920	---	6090	---	19900	---	205	73	---
TOTAL	2419	14096	237457	771540	344980	363360	194480	120490	125826	12719	3666	1685
MEAN	78.0	470	7660	24890	12320	11720	6483	3887	4194	410	118	56.2
MAX	1300	1820	48400	119000	35900	37800	16000	19900	17900	771	201	70
MIN	11	142	268	6210	4810	6090	3800	1980	817	205	73	50
AC-FT	4800	27960	471000	1530000	684300	720700	385800	239000	249600	25230	7270	3340

a Estimated.

11475000 EEL RIVER AT FORT SEWARD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	422	3169	8827	11980	12220	9375	5222	2174	666	139	53.5	56.7
MAX	4938	18740	56050	37660	47700	30620	23040	7449	4194	482	199	359
(WY)	1963	1974	1965	1970	1986	1983	1982	1983	1993	1983	1983	1986
MIN	20.5	49.4	45.5	222	434	1071	476	356	131	18.4	3.27	9.57
(WY)	1965	1960	1977	1991	1977	1988	1977	1977	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1955 - 1993	
ANNUAL TOTAL	841456.5		2192718			
ANNUAL MEAN	2299		6007		4492	
HIGHEST ANNUAL MEAN					10350	1983
LOWEST ANNUAL MEAN					260	1977
HIGHEST DAILY MEAN	48400	Dec 31	119000	Jan 21	434000	Dec 22 1964
LOWEST DAILY MEAN	6.7	Aug 31	11	Oct 1	1.2	Sep 13 1977
ANNUAL SEVEN-DAY MINIMUM	7.0	Aug 27	17	Oct 1	1.4	Sep 7 1977
INSTANTANEOUS PEAK FLOW			195000	Jan 20	561000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			46.49	Jan 20	82.60	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	1669000		4349000		3254000	
10 PERCENT EXCEEDS	5700		14700		11400	
50 PERCENT EXCEEDS	410		2100		689	
90 PERCENT EXCEEDS	11		54		35	

11475560 ELDER CREEK NEAR BRANSCOMB, CA
(Hydrologic Benchmark Station)

LOCATION.--Lat 39°43'47", long 123°38'34", in NW 1/4 NE 1/4 sec.29, T.22 N., R.16 W., Mendocino County, Hydrologic Unit 18010106, on right bank 0.2 mi upstream from mouth and 5.3 mi north of Branscomb. Rain gage: lat 39°43'50", long 123°38'07", in NW 1/4 NW 1/4 sec.28, T.22 N., R.16 W., elevation, 1,440 ft at site 0.5 mi east of gaging station.

DRAINAGE AREA.--6.50 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and one recording and storage-type precipitation gage. Datum of gage is 1,391.08 ft above sea level.

REMARKS.--Records good. No regulation; small diversion upstream from station for domestic use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,280 ft^3/s, Mar. 29, 1974, gage height, 9.77 ft, from rating curve extended above 660 ft^3/s on basis of slope-area measurements at gage heights 9.40 and 11.41 ft; minimum daily, 0.27 ft^3/s, Sept. 10-15, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 11.41 ft, from floodmarks, discharge, 3,660 ft^3/s by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 31	1345	402	6.36	Jan. 20	1200	*2,040	*9.45

Minimum daily, 0.74 ft^3/s, Oct. 10-14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	9.3	2.3	183	27	41	39	27	111	9.5	3.4	1.8
2	1.2	6.8	3.4	107	25	41	41	25	90	9.2	3.3	1.7
3	1.3	4.6	3.6	74	23	51	41	29	67	8.8	3.1	1.7
4	1.2	3.6	3.1	60	21	48	61	27	61	8.4	3.1	1.6
5	1.1	3.0	3.0	50	21	44	61	25	55	8.0	3.0	1.5
6	.99	2.7	8.6	51	19	41	55	23	50	7.7	2.8	1.5
7	.90	2.3	16	82	18	38	48	22	46	7.4	2.7	1.4
8	.88	2.0	e45	83	17	34	45	21	43	7.1	2.8	1.4
9	.75	2.0	e105	72	17	32	42	20	38	6.7	2.8	1.3
10	.74	1.8	e205	63	16	31	45	19	35	6.4	2.8	1.3
11	.74	1.7	e130	54	27	28	43	19	32	6.3	2.8	1.3
12	.74	1.6	e90	51	27	26	41	18	29	6.0	2.8	1.3
13	.74	1.6	e62	68	25	24	38	17	27	5.9	2.8	1.3
14	.74	1.5	e40	103	24	23	35	16	25	5.8	2.6	1.3
15	.75	1.5	e27	99	23	27	33	15	23	5.7	2.6	e1.3
16	.88	1.5	e29	113	21	28	30	15	22	5.5	2.5	e1.3
17	.88	1.5	e28	97	24	139	76	14	20	5.5	2.4	1.4
18	.88	1.5	24	77	32	172	89	14	19	5.2	2.4	1.2
19	.88	2.2	22	74	62	131	74	15	17	5.1	2.2	1.3
20	1.5	2.1	24	e700	78	92	60	16	16	4.9	2.3	1.3
21	1.9	3.1	23	290	69	68	50	15	15	4.7	2.3	1.3
22	1.5	9.5	22	240	70	54	44	14	14	4.6	2.1	1.3
23	1.4	5.4	20	166	114	64	46	14	14	4.6	2.0	1.3
24	1.3	4.1	19	118	102	64	46	14	13	4.5	2.0	1.3
25	1.2	3.6	17	84	78	58	43	13	12	4.3	1.9	1.3
26	1.2	3.2	16	62	60	52	41	30	12	4.2	1.9	1.3
27	1.2	3.0	15	50	50	47	38	39	11	4.1	1.8	1.3
28	1.2	2.8	21	43	45	42	34	39	11	3.9	1.8	1.3
29	4.1	2.7	29	38	---	38	32	37	10	3.7	1.8	1.2
30	6.0	2.4	32	33	---	34	29	49	9.9	3.6	1.8	1.2
31	7.3	---	261	30	---	34	---	91	---	3.6	1.8	---
TOTAL	47.19	94.6	1346.0	3415	1135	1646	1400	752	947.9	180.9	76.4	41.0
MEAN	1.52	3.15	43.4	110	40.5	53.1	46.7	24.3	31.6	5.84	2.46	1.37
MAX	7.3	9.5	261	700	114	172	89	91	111	9.5	3.4	1.8
MIN	.74	1.5	2.3	30	16	23	29	13	9.9	3.6	1.8	1.2
AC-FT	94	188	2670	6770	2250	3260	2780	1490	1880	359	152	81
a	6.89	4.40	23.48	17.67	8.73	10.95	9.60	9.46	1.53	0	0	0

e Estimated.
a Precipitation, in inches.

11475560 ELDER CREEK NEAR BRANSCOMB, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.42	22.2	47.8	63.7	56.1	53.7	25.0	10.6	5.69	2.30	1.32	1.14
MAX	8.72	132	135	210	173	147	91.9	25.1	31.6	5.84	2.48	2.36
(WY)	1980	1974	1971	1970	1986	1983	1982	1990	1993	1993	1990	1986
MIN	.57	1.16	1.04	2.32	3.40	5.45	3.01	2.13	1.35	.67	.48	.51
(WY)	1988	1979	1977	1977	1977	1988	1977	1977	1977	1977	1977	1988

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1968 - 1993	
ANNUAL TOTAL	4823.42		11081.99			
ANNUAL MEAN	13.2		30.4		24.2	
HIGHEST ANNUAL MEAN					54.4	1974
LOWEST ANNUAL MEAN					2.12	1977
HIGHEST DAILY MEAN	261	Dec 31	700	Jan 20	1470	Jan 16 1974
LOWEST DAILY MEAN	.62	Sep 20	.74	Oct 10	.27	Sep 10 1981
ANNUAL SEVEN-DAY MINIMUM	.62	Sep 20	.74	Oct 9	.27	Sep 9 1981
INSTANTANEOUS PEAK FLOW			2040	Jan 20	2280	Mar 29 1974
INSTANTANEOUS PEAK STAGE			9.45	Jan 20	9.77	Mar 29 1974
ANNUAL RUNOFF (AC-FT)	9570		21980		17530	
10 PERCENT EXCEEDS	32		73		65	
50 PERCENT EXCEEDS	4.6		16		5.0	
90 PERCENT EXCEEDS	.74		1.3		.94	

11475560 ELDER CREEK NEAR BRANSCOMB, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.
CHEMICAL DATA: Water years 1968 to current year.
WATER TEMPERATURE: Water years 1968-79.
SEDIMENT DATA: Water years 1969 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1967 to September 1979.
SUSPENDED-SEDIMENT DISCHARGE: October 1973 to September 1975.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC											
17...	1545	29	107	7.8	7.5	1.3	722	11.0	97	31	54
MAR											
30...	1255	34	103	7.8	10.0	0.90	729	10.6	98	K8	K2
JUN											
09...	1415	38	107	7.9	13.0	0.60	728	9.8	97	K2	K1
SEP											
14...	1200	1.3	138	8.0	11.5	0.20	725	9.9	96	10	61

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLVED FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3
DEC										
17...	42	0	11	3.6	5.9	23	0.4	0.50	65	53
MAR										
30...	39	0	10	3.4	6.0	25	0.4	0.60	55	45
JUN										
09...	45	0	12	3.6	6.4	23	0.4	0.60	64	51
SEP										
14...	57	0	15	4.6	7.9	23	0.5	0.70	82	68

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
DEC										
17...	2.6	2.6	0.10	14	71	73	0.10	0.010	0.010	<0.050
MAR										
30...	2.1	2.6	<0.10	15	75	67	0.10	--	<0.010	--
JUN										
09...	2.0	2.5	0.10	16	81	75	0.11	--	<0.010	--
SEP										
14...	3.0	2.7	0.10	15	80	90	0.11	--	<0.010	--

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)
DEC										
17...	<0.050	<0.010	<0.010	<0.20	<0.010	0.020	0.020	0.020	20	16
MAR										
30...	<0.050	--	<0.010	<0.20	0.010	<0.010	--	0.010	20	11
JUN										
09...	<0.050	--	0.020	<0.20	0.030	0.030	--	0.020	<10	12
SEP										
14...	<0.050	--	0.010	<0.20	0.010	0.020	--	0.020	<10	16

11475560 ELDER CREEK NEAR BRANSCOMB, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	IRON, DIS-SOLVED (UG/L AS FE)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)
DEC										
17...	<3	10	<4	<1	<10	1	<1	<1.0	110	<6
MAR										
30...	<3	12	<4	<1	<10	<1	<1	<1.0	100	<6
JUN										
09...	<3	7	<4	<1	<10	<1	<1	<1.0	110	<6
SEP										
14...	<3	4	5	<1	<10	<1	<1	<1.0	140	<6

DATE	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
DEC										
17...	--	--	--	--	--	--	--	--	--	--
MAR										
30...	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	0.02	0.01
JUN										
09...	--	--	--	--	--	--	--	--	--	--
SEP										
14...	<0.6	<0.6	<0.6	<0.6	1.5	<0.6	1.3	<0.6	0.04	0.02

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR											
30...*	1200	1.10	6.80	103	7.8	9.5	729	10.6	97	2	--
30...*	1210	1.60	13.9	103	7.8	9.5	729	10.6	97	0	--
30...*	1220	1.50	18.6	103	7.8	9.5	729	10.6	97	2	--
SEP											
14...*	1255	0.21	3.50	138	8.0	12.0	725	10.0	98	0	--
14...*	1305	0.79	8.90	138	8.0	12.0	725	9.9	97	0	--
14...*	1315	0.80	12.2	138	8.0	12.0	725	9.9	97	1	--

* Instantaneous streamflow at the time of cross-sectional measurements: Mar. 30, 34 ft^3/s; Sept. 14, 1.3 ft^3/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC						
17...	1545	29	7.5	4	0.31	76
MAR						
30...	1205	34	9.5	1	0.09	95
30...	1255	34	10.0	4	0.37	89
JUN						
09...	1415	38	13.0	1	0.10	--
SEP						
14...	1200	1.3	11.5	2	0.01	62
14...	1300	1.3	12.0	0	0.0	--

11475800 SOUTH FORK EEL RIVER AT LEGGETT, CA

LOCATION.--Lat 39°52'29", long 123°43'10", in NE 1/4 SE 1/4 sec.3, T.23 N., R.17 W., Mendocino County, Hydrologic Unit 18010106, on right bank near Standish Hickey State Park, 0.2 mi upstream from Rock Creek, and 0.7 mi northwest of Leggett.

DRAINAGE AREA.--248 mi^2.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 691.32 ft above sea level. Prior to July 29, 1988, at datum 2.00 ft higher.

REMARKS.--Records fair below 4,000 ft^3/s and poor above 4,000 ft^3/s. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72,700 ft^3/s, Jan. 4, 1966, gage height, 27.4 ft, from floodmarks, present datum, from rating curve extended above 21,000 ft^3/s on basis of slope-area measurement at gage height 28.13 ft; minimum daily, 7.3 ft^3/s, Aug. 4-6, 12, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 28.13 ft, from floodmarks, present datum, discharge, 78,700 ft^3/s, by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 8	1830	12,100	12.10	Jan. 20	1515	*32,500	*18.66
Dec. 31	Unknown	Unknown	Unknown				

Minimum daily, 12 ft^3/s, Oct. 13-19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	519	69	e7000	543	694	873	543	2250	191	88	45
2	15	310	101	2970	498	748	839	503	1590	183	85	45
3	19	170	149	1690	465	974	743	593	1230	178	81	45
4	17	111	120	1250	427	839	1510	605	1400	173	78	43
5	17	88	101	1020	410	724	1310	526	1420	166	77	43
6	17	74	281	1090	391	642	1060	491	1150	160	77	42
7	15	e66	966	3250	365	572	888	461	979	155	75	42
8	14	e59	4780	2210	381	512	861	436	837	149	74	42
9	14	52	4960	1800	384	467	840	412	729	146	73	41
10	13	48	6460	1580	383	469	922	390	647	140	73	39
11	13	45	3640	1260	1110	421	785	374	581	135	73	37
12	13	40	2220	1090	840	376	684	370	529	131	73	36
13	12	40	1440	2160	647	348	607	359	488	129	73	36
14	12	38	1100	4140	563	347	541	345	452	125	70	36
15	12	36	862	2830	504	469	509	324	424	124	66	36
16	12	38	700	3490	460	484	451	308	400	122	65	36
17	12	43	746	2220	562	5050	2270	294	374	120	64	36
18	12	43	696	1610	1070	6180	2400	284	351	118	63	36
19	12	60	548	1530	2550	3040	1610	301	329	113	62	36
20	15	72	742	21600	2830	1830	1290	370	313	111	62	36
21	29	85	722	10600	2320	1330	1080	340	297	111	62	36
22	28	656	581	8400	2110	1050	908	314	285	109	62	36
23	26	292	501	4170	4000	1660	1050	290	271	108	60	36
24	22	165	448	2630	2490	1680	1350	282	256	106	55	35
25	19	125	404	1850	1680	1230	1040	280	241	104	53	34
26	18	101	366	1400	1260	1030	903	745	230	101	52	34
27	17	92	336	1110	994	868	804	956	220	98	48	31
28	17	86	805	e910	810	743	723	860	214	96	48	31
29	74	78	1660	e780	---	636	648	699	207	96	46	30
30	316	73	1500	e680	---	556	589	1340	199	96	45	29
31	273	---	e5000	604	---	552	---	2960	---	94	45	---
TOTAL	1118	3706	43004	98924	31047	36521	30088	17355	18893	3989	2028	1120
MEAN	36.1	124	1387	3191	1109	1178	1003	560	630	129	65.4	37.3
MAX	316	656	6460	21600	4000	6180	2400	2960	2250	191	88	45
MIN	12	36	69	604	365	347	451	280	199	94	45	29
AC-FT	2220	7350	85300	196200	61580	72440	59680	34420	37470	7910	4020	2220

e Estimated.

11475800 SOUTH FORK EEL RIVER AT LEGGETT, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	74.3	811	1692	2276	2044	1787	796	279	130	50.2	29.9	30.7
MAX	272	4050	6072	7278	7294	5515	3528	830	630	129	65.4	87.8
(WY)	1980	1974	1984	1970	1986	1983	1982	1990	1993	1993	1993	1986
MIN	15.3	45.4	32.9	98.1	137	147	78.4	59.5	26.7	9.96	9.67	10.7
(WY)	1988	1991	1977	1977	1977	1988	1977	1977	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1966 - 1993	
ANNUAL TOTAL	159560		287793			
ANNUAL MEAN	436		788		829	
HIGHEST ANNUAL MEAN					1778	1983
LOWEST ANNUAL MEAN					69.5	1977
HIGHEST DAILY MEAN	6460	Dec 10	21600	Jan 20	49800	Jan 4 1966
LOWEST DAILY MEAN	10	Aug 19	12	Oct 13	7.3	Aug 4 1977
ANNUAL SEVEN-DAY MINIMUM	10	Sep 16	12	Oct 13	7.5	Jul 31 1977
INSTANTANEOUS PEAK FLOW			32500	Jan 20	72700	Jan 4 1966
INSTANTANEOUS PEAK STAGE			18.66	Jan 20	27.40	Jan 4 1966
ANNUAL RUNOFF (AC-FT)	316500		570800		600200	
10 PERCENT EXCEEDS	1110		1730		2080	
50 PERCENT EXCEEDS	101		348		140	
90 PERCENT EXCEEDS	11		36		23	

11476500 SOUTH FORK EEL RIVER NEAR MIRANDA, CA

LOCATION.--Lat 40°10'55", long 123°46'30", in NW 1/4 sec.30, T.3 S., R.4 E., Humboldt County, Hydrologic Unit 18010106, on right bank 0.5 mi upstream from Rocky Glen Creek, 4.3 mi southeast of Miranda, and 20 mi upstream from mouth.

DRAINAGE AREA.--537 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1395: Drainage area. WSP 2129: 1955.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 217.57 ft above sea level. Prior to Nov. 2, 1940, nonrecording gage at site 200 ft upstream at datum 0.8 ft higher. Nov. 2, 1940, to Oct. 31, 1944, nonrecording gage at present site and datum.

REMARKS.--Records fair except for winter months, which are poor. Occasional storage and release for recreational use during summer months at Benbow Reservoir, capacity, 1,060 acre-ft, 16 mi upstream. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 199,000 ft^3/s, Dec. 22, 1964, gage height, 46.0 ft, from floodmarks, from rating curve extended above 53,000 ft^3/s on basis of slope-area measurement at gage height 42.7 ft; minimum observed, 9 ft^3/s, Oct. 17, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 9	0245	27,700	18.02	Jan. 20	1645	*91,800	*32.36
Dec. 31	Unknown	Unknown	Unknown	Mar. 18	0745	22,600	16.58

Minimum daily, 32 ft^3/s, Oct. 16-19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	1160	139	28700	2060	2990	3570	1620	7140	e440	151	69
2	35	971	195	12700	1830	2880	3650	1430	5280	e420	143	70
3	40	490	299	8330	1710	3940	3240	1490	3770	e405	138	68
4	42	287	295	6360	1560	3680	5620	1740	3510	e390	128	67
5	41	199	231	5370	1480	3220	5640	1410	4300	e375	128	67
6	40	157	357	5140	1420	2930	4510	1270	3470	e360	128	63
7	38	134	2580	11000	1330	2680	3800	1210	2920	e345	127	63
8	37	117	8330	9640	1320	2440	3610	1150	2510	329	118	62
9	35	106	16500	8230	1310	2260	4020	1090	2010	337	117	60
10	34	98	16100	7440	1360	2080	4720	1040	1640	329	118	60
11	34	93	12000	6180	2980	1880	3980	992	1420	322	115	59
12	34	88	7420	5340	3110	1940	3440	978	1270	310	116	58
13	34	85	4230	6740	2390	1840	3080	952	1160	293	113	57
14	33	82	2770	11400	2020	1820	2780	929	1090	282	108	56
15	33	81	1870	9650	1810	2280	2560	883	1020	278	108	55
16	32	80	1360	12000	1670	2740	1860	845	969	274	107	55
17	32	84	1220	9140	1800	15000	6130	808	934	265	99	58
18	32	88	1220	7130	3840	19700	8510	784	e880	258	104	147
19	32	104	961	6740	7520	12100	5780	796	e820	252	103	174
20	35	125	997	61200	10300	8210	4340	869	e770	249	99	126
21	44	146	1210	35700	8910	6030	3590	887	e730	270	95	87
22	56	1020	1040	26200	8290	4750	2970	895	e680	171	93	69
23	54	1000	1000	14400	12000	6380	3190	859	638	211	89	57
24	50	457	920	9760	9520	7010	4880	803	609	201	87	54
25	47	297	819	7200	6850	5430	3650	836	e580	190	84	51
26	44	230	743	5580	5240	4470	3180	1610	e550	183	84	51
27	41	213	648	4380	4070	3780	2760	3260	e525	177	80	51
28	40	192	2740	3600	3350	3330	2510	2550	e500	171	77	49
29	84	170	5280	3080	---	2950	2070	1930	e480	165	45	48
30	530	151	5650	2680	---	2630	1790	3240	e460	161	67	48
31	752	---	e21000	2330	---	2500	---	8050	---	156	68	---
TOTAL	2448	8505	120124	353340	111050	145870	115430	47206	52635	8569	3237	2059
MEAN	79.0	283	3875	11400	3966	4705	3848	1523	1754	276	104	68.6
MAX	752	1160	21000	61200	12000	19700	8510	8050	7140	440	151	174
MIN	32	80	139	2330	1310	1820	1790	784	460	156	45	48
AC-FT	4860	16870	238300	700800	220300	289300	229000	93630	104400	17000	6420	4080

e Estimated.

11476500 SOUTH FORK EEL RIVER NEAR MIRANDA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	285	1561	4147	5251	4755	3590	1867	687	308	114	62.4	62.2
MAX	3332	10130	17260	17530	16640	13000	8425	2370	1754	276	131	221
(WY)	1963	1974	1965	1970	1986	1983	1982	1990	1993	1993	1983	1986
MIN	20.0	25.0	74.6	207	284	304	176	122	52.7	20.4	18.0	29.1
(WY)	1940	1940	1977	1977	1977	1988	1977	1977	1977	1977	1977	1949

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1940 - 1993	
ANNUAL TOTAL	383919		970473			
ANNUAL MEAN	1049		2659		1880	
HIGHEST ANNUAL MEAN					4393	1983
LOWEST ANNUAL MEAN					156	1977
HIGHEST DAILY MEAN	21000	Dec 31	61200	Jan 20	161000	Dec 22 1964
LOWEST DAILY MEAN	23	Sep 13	32	Oct 16	10	Aug 30 1964
ANNUAL SEVEN-DAY MINIMUM	24	Sep 12	33	Oct 13	14	Jul 30 1977
INSTANTANEOUS PEAK FLOW			91800	Jan 20	199000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			32.36	Jan 20	46.00	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	761500		1925000		1362000	
10 PERCENT EXCEEDS	2630		7130		4910	
50 PERCENT EXCEEDS	222		920		340	
90 PERCENT EXCEEDS	31		55		46	

11476600 BULL CREEK NEAR WEOTT, CA

LOCATION.--Lat 40°21'05", long 124°00'10", in SW 1/4 NW 1/4 sec.30, T.1 S., R.2 E., Humboldt County, Hydrologic Unit 18010106, on left bank 0.2 mi downstream from Albee Creek, 4.5 mi northwest of Weott, and 4.6 mi upstream from mouth.

DRAINAGE AREA.--28.1 mi^2.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 269.36 ft above sea level. Prior to Dec. 22, 1964, water-stage recorder, and Jan. 14 to Aug. 10, 1965, nonrecording gage at site 150 ft downstream at datum 8.90 ft lower.

REMARKS.--Records fair except for summer months, which are poor. Minor diversions upstream from station for domestic and recreational use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,520 ft^3/s, Dec. 22, 1964, gage height, 20.6 ft, from floodmarks, site and datum then in use, from rating curve extended above 2,100 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.30 ft^3/s, Sept. 28, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 31	0645	2,020	7.53	Jan. 20	0645	*3,300	*9.03

Minimum daily, 0.51 ft^3/s, Oct. 12, 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.2	45	4.8	729	106	178	179	113	220	30	7.4	2.8
2	e1.3	19	20	517	95	165	166	104	199	29	6.8	2.6
3	e1.3	11	15	390	86	178	164	114	179	27	6.4	2.5
4	e1.2	7.5	11	322	79	152	230	104	173	24	6.3	2.5
5	e1.1	5.7	8.7	273	74	137	208	93	157	23	6.3	2.5
6	e1.0	4.8	28	255	67	126	192	88	145	21	6.3	2.7
7	.95	4.2	51	344	63	115	175	81	130	20	6.3	2.4
8	.79	3.7	262	339	61	105	183	77	118	19	6.1	2.3
9	.61	3.4	233	323	57	97	171	72	109	17	5.7	2.2
10	.58	3.2	580	302	78	92	161	67	101	16	5.6	2.1
11	.56	2.9	436	271	107	85	147	64	93	15	5.8	2.1
12	.51	2.7	317	245	91	79	134	64	88	14	5.7	2.2
13	.51	2.6	217	241	81	75	123	62	81	14	5.6	2.1
14	.55	2.5	161	301	76	76	113	63	76	14	5.4	1.9
15	.62	2.2	127	311	70	97	104	56	73	13	5.5	1.9
16	.65	2.6	106	362	66	101	100	52	68	12	5.3	2.1
17	.65	3.0	104	327	71	436	258	49	64	12	5.0	2.3
18	.63	2.6	89	293	135	470	252	47	59	11	4.7	2.3
19	.58	9.1	79	398	545	361	220	53	55	10	5.1	2.2
20	2.2	6.0	77	1880	574	294	204	50	53	9.4	5.9	2.2
21	10	11	70	1380	474	243	189	46	51	8.6	5.0	2.1
22	3.9	33	63	1150	447	206	171	42	48	9.4	4.4	2.0
23	2.8	13	59	737	509	254	221	41	44	11	4.1	1.8
24	2.4	9.4	56	534	423	210	227	40	41	8.9	4.1	1.6
25	2.1	7.3	52	399	352	188	203	40	40	8.3	3.9	1.4
26	1.8	6.3	48	309	289	169	183	69	38	8.6	3.7	1.2
27	1.7	7.9	72	247	238	153	168	102	36	9.8	3.3	1.1
28	1.7	6.7	339	200	200	137	152	87	35	9.6	3.1	1.2
29	14	6.0	386	167	---	122	138	85	34	9.0	2.9	1.5
30	35	5.4	391	143	---	111	125	155	31	8.5	2.8	1.3
31	30	---	1240	122	---	121	---	199	---	8.1	2.8	---
TOTAL	122.89	249.7	5702.5	13811	5514	5333	5261	2379	2639	450.2	157.3	61.1
MEAN	3.96	8.32	184	446	197	172	175	76.7	88.0	14.5	5.07	2.04
MAX	35	45	1240	1880	574	470	258	199	220	30	7.4	2.8
MIN	.51	2.2	4.8	122	57	75	100	40	31	8.1	2.8	1.1
AC-FT	244	495	11310	27390	10940	10580	10440	4720	5230	893	312	121

e Estimated.

11476600 BULL CREEK NEAR WEOTT, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	14.8	123	261	307	289	236	120	40.7	17.1	6.61	3.58	3.19
MAX	160	683	705	901	1056	717	526	137	88.0	14.5	10.0	12.8
(WY)	1963	1974	1978	1978	1986	1983	1963	1963	1993	1993	1983	1986
MIN	.72	5.01	3.67	10.5	13.8	16.0	11.2	10.3	4.84	1.81	.70	.50
(WY)	1988	1991	1977	1977	1977	1988	1988	1988	1977	1977	1992	1988

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1961 - 1993	
ANNUAL TOTAL	23163.95		41680.69			
ANNUAL MEAN	63.3		114		118	
HIGHEST ANNUAL MEAN					287	1983
LOWEST ANNUAL MEAN					9.72	1977
HIGHEST DAILY MEAN	1240	Dec 31	1880	Jan 20	4900	Jan 16 1974
LOWEST DAILY MEAN	.46	Sep 2	.51	Oct 12	.30	Sep 28 1974
ANNUAL SEVEN-DAY MINIMUM	.48	Aug 27	.56	Oct 9	.39	Sep 12 1988
INSTANTANEOUS PEAK FLOW			3300	Jan 20	6520	Dec 22 1964
INSTANTANEOUS PEAK STAGE			9.03	Jan 20	20.60	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	45950		82670		85260	
10 PERCENT EXCEEDS	177		301		307	
50 PERCENT EXCEEDS	15		53		22	
90 PERCENT EXCEEDS	.58		2.1		2.1	

11477000 EEL RIVER AT SCOTIA, CA
(National Stream Quality Accounting Network Station)

LOCATION.--Lat 40°29'30", long 124°05'55", in SW 1/4 sec.5, T.1 N., R.1 E., Humboldt County, Hydrologic Unit 18010105, near center of span in left pier of A.S. Murphy Memorial Bridge on State Highway 283, 0.5 mi north of Scotia, and 6 mi upstream from Van Duzen River.
DRAINAGE AREA.--3,113 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods and yearly estimates for 1915-16, published in WSP 1315-B.
REVISED RECORDS.--WSP 931: 1938. WSP 1315-B: 1914-15(M), 1917(M), 1927-28(M), 1936(M), 1939(M). WSP 1345: Drainage area. WSP 1715: 1959.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 35.50 ft above sea level. Prior to Dec. 12, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good. Low flow slightly regulated by Lake Pillsbury (station 11470000) 138 mi upstream since December 1921 and by diversion through Potter Valley Powerhouse Intake (station 11471000).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 752,000 ft^3/s, Dec. 23, 1964, gage height, 72.0 ft, from floodmarks, from rating curve extended above 220,000 ft^3/s on basis of maximum flow at upstream stations; minimum observed, 10 ft^3/s, Aug. 12-14, 1924.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 72,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 11	0330	82,900	26.89	Jan. 21	0100	*290,000	*46.03
Jan. 1	0400	167,000	36.00				

Minimum daily, 60 ft^3/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	2790	603	136000	9080	11900	11900	6710	30600	1580	503	218
2	62	3450	618	47000	8150	11100	13300	6380	23100	1470	486	220
3	63	2780	893	24300	7550	12900	11500	6600	16300	1410	461	218
4	62	1830	924	15700	7160	13500	13400	8620	13100	1330	437	213
5	67	1200	959	12800	6900	11600	16400	7850	17200	1300	411	204
6	75	852	905	10700	8220	10600	13100	6490	15700	1260	394	200
7	80	678	3400	35100	8620	10200	11100	5940	13400	1220	385	193
8	80	567	9650	32000	8230	10100	10100	5540	11100	1170	375	186
9	77	483	57800	22700	10500	9760	11100	5140	9250	1100	364	182
10	80	418	51000	19000	11900	9740	12500	4780	7840	1070	351	178
11	81	374	59300	15400	16300	9730	11700	4710	6880	1020	337	171
12	80	346	29100	12400	19300	9090	9870	4860	6030	979	337	164
13	74	326	15600	12800	14200	8590	8710	4670	5360	942	337	160
14	74	312	9930	36900	11400	8740	7840	4380	4920	908	326	159
15	72	303	7170	39300	9780	10400	7300	4020	4520	880	319	153
16	68	e296	5740	40600	8640	11300	7000	3790	4170	854	319	151
17	68	e290	5120	30000	7970	36700	11800	3650	3880	827	319	151
18	74	e285	5280	22000	13300	64900	28200	3550	3600	801	311	148
19	77	e295	4690	17800	28500	42800	20400	3510	3350	784	307	179
20	85	e375	4100	133000	56600	26800	15200	3660	3090	755	307	264
21	132	e700	4650	200000	40800	19700	13000	4250	2810	733	311	255
22	151	e1500	4680	120000	32900	16000	11300	4180	2620	735	310	206
23	151	2600	4070	64000	42500	16900	10600	3640	2470	653	296	183
24	151	2170	3610	36800	39600	30400	14900	3350	2350	659	287	162
25	161	1370	3290	26400	26700	25600	12600	3340	2240	647	282	150
26	178	1030	3080	20900	19900	18900	10700	5040	2100	627	276	146
27	179	858	2940	17600	15900	15300	9470	13400	1980	609	270	143
28	175	775	6990	14800	13400	13100	8270	12300	1870	587	265	139
29	210	700	15700	12900	---	11400	7440	9370	1800	559	253	136
30	478	650	18200	11400	---	10100	6960	9800	1690	537	240	133
31	1270	---	72000	10200	---	9240	---	29000	---	521	212	---
TOTAL	4695	30603	411992	1250500	504000	527090	357660	202520	225320	28527	10388	5365
MEAN	151	1020	13290	40340	18000	17000	11920	6533	7511	920	335	179
MAX	1270	3450	72000	200000	56600	64900	28200	29000	30600	1580	503	264
MIN	60	285	603	10200	6900	8590	6960	3340	1690	521	212	133
AC-FT	9310	60700	817200	2480000	999700	1045000	709400	401700	446900	56580	20600	10640

e Estimated.

11477000 EEL RIVER AT SCOTIA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	706	5304	13830	19060	19540	14020	8884	3589	1257	336	150	145
MAX	10910	38690	84420	69950	77680	51150	39190	11570	7511	920	422	735
(WY)	1963	1974	1965	1970	1958	1983	1982	1912	1993	1993	1983	1986
MIN	50.5	59.3	168	659	389	946	703	278	75.7	25.1	22.1	19.4
(WY)	1930	1930	1977	1977	1920	1924	1924	1924	1924	1924	1924	1924

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1911 - 1993	
ANNUAL TOTAL	1486141		3558660			
ANNUAL MEAN	4060		9750		7179	
HIGHEST ANNUAL MEAN					17300	1983
LOWEST ANNUAL MEAN					563	1977
HIGHEST DAILY MEAN	72000	Dec 31	200000	Jan 21	648000	Dec 23 1964
LOWEST DAILY MEAN	41	Sep 12	60	Oct 1	12	Aug 12 1924
ANNUAL SEVEN-DAY MINIMUM	43	Sep 12	67	Oct 1	14	Aug 10 1924
INSTANTANEOUS PEAK FLOW			290000	Jan 21	752000	Dec 23 1964
INSTANTANEOUS PEAK STAGE			46.03	Jan 21	72.00	Dec 23 1964
ANNUAL RUNOFF (AC-FT)	2948000		7059000		5201000	
10 PERCENT EXCEEDS	9700		23600		17500	
50 PERCENT EXCEEDS	878		3650		1360	
90 PERCENT EXCEEDS	63		161		103	

11477000 EEL RIVER AT SCOTIA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to current year.
CHEMICAL DATA: Water years 1952-75, 1977, 1979 to current year.
BIOLOGICAL DATA: Water year 1979-81.
SPECIFIC CONDUCTANCE: Water years 1979-81.
WATER TEMPERATURE: Water years 1958-82.
SEDIMENT DATA: Water years 1955 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1979 to September 1981.
WATER TEMPERATURE: October 1957 to June 1982.
SUSPENDED-SEDIMENT DISCHARGE: October 1957 to September 1980.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
05...	1200	1170	242	8.1	16.0	1.6	764	9.2	93	15	21
DEC											
10...	1050	39700	105	8.1	10.0	230	758	10.6	94	--	--
29...	1215	17000	136	8.0	7.0	110	749	11.3	95	--	--
JAN											
04...	1410	15600	134	7.9	7.0	100	759	11.8	98	75	89
23...	1200	62800	107	8.1	8.0	380	768	11.7	98	--	--
FEB											
19...	1155	24100	131	8.1	8.5	170	743	11.1	97	--	--
23...	1315	46200	117	8.0	8.0	290	756	11.6	99	--	--
MAR											
05...	1325	11500	148	8.1	11.0	34	771	10.9	98	K11	K5
24...	1105	30500	127	8.2	11.5	270	760	10.4	96	--	--
MAY											
04...	1140	8310	153	8.1	14.5	35	763	9.6	94	220	100
JUL											
01...	1115	1600	224	8.2	19.5	1.0	760	8.6	94	K1	K1
SEP											
01...	1215	220	296	8.2	20.5	0.30	763	8.4	93	K2	14

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
NOV											
05...	100	11	28	7.9	8.7	15	0.4	1.0	112	0	92
DEC											
10...	44	1	12	3.4	3.7	15	0.2	0.80	53	0	43
29...	75	21	19	6.6	5.9	14	0.3	1.0	65	0	54
JAN											
04...	59	0	16	4.5	5.1	16	0.3	0.80	72	0	59
23...	44	0	12	3.4	3.6	15	0.2	0.90	57	0	47
FEB											
19...	57	6	15	4.8	4.6	15	0.3	0.70	63	0	52
23...	50	1	13	4.2	4.2	15	0.3	0.70	59	0	48
MAR											
05...	64	6	17	5.2	4.7	14	0.3	0.70	70	0	58
24...	55	0	15	4.2	4.2	14	0.2	0.80	67	0	55
MAY											
04...	67	0	18	5.4	5.3	14	0.3	0.70	82	0	67
JUL											
01...	96	0	26	7.5	6.7	13	0.3	1.0	117	0	96
SEP											
01...	130	9	37	10	8.5	12	0.3	1.3	150	1	125

11477000 EEL RIVER AT SCOTIA, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
NOV										
05...	19	8.1	0.20	9.3	153	139	0.21	0.010	<0.010	0.260
DEC										
10...	7.7	2.5	<0.10	8.1	65	65	0.09	0.050	<0.010	0.190
29...	11	3.5	<0.10	10	88	89	0.12	--	0.020	--
JAN										
04...	8.2	2.9	<0.10	11	76	85	0.10	--	0.010	--
23...	5.0	2.4	<0.10	10	72	66	0.10	--	0.020	--
FEB										
19...	8.9	2.7	<0.10	10	78	78	0.11	--	<0.010	--
23...	6.7	2.2	<0.10	11	68	71	0.09	--	0.010	--
MAR										
05...	8.9	2.5	<0.10	11	85	85	0.12	--	0.030	--
24...	6.4	1.8	<0.10	11	77	76	0.10	--	<0.010	--
MAY										
04...	10	2.5	0.10	11	86	94	0.12	--	<0.010	--
JUL										
01...	13	3.6	0.10	12	130	127	0.18	--	<0.010	--
SEP										
01...	16	5.5	0.20	11	165	165	0.22	--	0.030	--

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BARIUM, DIS-SOLVED (UG/L AS BA)
NOV										
05...	0.270	0.010	<0.010	<0.20	0.010	<0.010	<0.010	<0.010	<10	71
DEC										
10...	0.170	<0.010	<0.010	0.90	0.540	0.040	0.020	0.010	--	--
29...	0.084	--	<0.010	0.40	0.250	0.120	--	0.010	--	--
JAN										
04...	0.080	--	<0.010	0.30	0.160	0.020	--	0.020	40	39
23...	0.050	--	0.010	0.30	0.180	0.020	--	0.010	--	--
FEB										
19...	<0.050	--	0.010	0.40	0.100	0.020	--	0.020	--	--
23...	<0.050	--	0.010	0.30	0.130	0.020	--	0.020	--	--
MAR										
05...	0.055	--	0.010	<0.20	0.050	0.020	--	0.020	--	--
24...	<0.050	--	0.010	<0.20	0.050	0.020	--	0.020	--	--
MAY										
04...	<0.050	--	<0.010	<0.20	0.030	0.030	--	0.010	30	52
JUL										
01...	<0.050	--	0.020	<0.20	<0.010	<0.010	--	0.010	--	--
SEP										
01...	<0.050	--	0.030	0.20	0.010	<0.010	--	<0.010	<10	81

11477000 EEL RIVER AT SCOTIA, CA--Continued

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	IRON, DIS-SOLVED (UG/L AS FE)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)
NOV										
05...	<3	22	<4	10	<10	2	<1	<1.0	360	<6
DEC										
10...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
JAN										
04...	<3	47	<4	6	<10	<1	<1	<1.0	200	<6
23...	--	--	--	--	--	--	--	--	--	--
FEB										
19...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
MAR										
05...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	<3	33	<4	2	<10	1	<1	<1.0	230	<6
JUL										
01...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	<3	5	<4	5	<10	<1	<1	<1.0	400	<6

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JAN											
23...*	1030	15.4	105	107	8.2	8.0	768	11.6	97	1800	75
23...*	1110	18.5	165	106	8.2	8.0	768	11.7	98	1920	72
23...*	1150	21.0	275	106	8.2	8.0	768	11.7	98	2030	68
23...*	1230	22.0	375	106	8.1	8.0	768	11.6	97	2300	62
23...*	1310	28.0	465	106	8.1	8.0	768	11.6	97	2560	56
AUG											
02...*	1130	1.80	48.0	274	8.2	24.0	760	8.0	95	1	--
02...*	1145	2.30	82.0	274	8.2	23.5	760	8.0	95	1	--
02...*	1205	2.40	108	274	8.2	23.5	760	8.0	95	1	--
02...*	1220	2.30	134	275	8.2	24.0	760	8.0	95	1	--
02...*	1235	2.00	161	276	8.2	24.0	760	8.0	95	1	--

* Instantaneous streamflow at time of cross-sectional measurement: Jan. 23, 62,800 ft^3/s; Aug. 2, 482 ft^3/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV						
05...	1200	1170	16.0	3	9.5	100
DEC						
10...	1050	39700	10.0	1040	111000	74
29...	1215	17000	7.0	627	28800	70
JAN						
04...	1410	15600	7.0	368	15500	81
23...	1200	62800	8.0	2120	359000	67
FEB						
19...	1155	24100	8.5	912	59300	66
23...	1315	46200	8.0	1540	192000	70
MAR						
05...	1325	11500	11.0	144	4470	60
24...	1105	30500	11.5	1230	101000	67
MAY						
04...	1140	8310	14.5	102	2290	76
JUL						
01...	1115	1600	19.5	4	17	96
AUG						
02...	1200	482	24.0	1	1.3	100
SEP						
01...	1215	220	20.5	2	1.2	81

11477425 MILL CREEK BELOW DIVERSION DAM, NEAR DINSMORE, CA

LOCATION.--Lat 40°27'52", long 123°35'59", in NE 1/4 SW 1/4 sec.15, T.1 N., R.5 E., Humboldt County, Hydrologic Unit 18010105, on left bank 1.9 mi south-southeast of Dinsmore.

DRAINAGE AREA.--0.74 mi^2.

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stege recorder and 90° V-notch weir. Elevation of gage is 3,660 ft above sea level, from topographic map.

REMARKS.--No estimeted daily discharges. The gage measures fishwater release only. Water diverted upstream to Mill and Sulphur Creek Powerplant.

COOPERATION.--Records provided by North Coast Hydroelectric, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 0.51 ft^3/s, Apr. 17, 1992; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.27	.46	.26	.37	.40	.40	.42	.00	.00	.00
2	.00	.00	.40	.44	.26	.42	.40	.40	.42	.00	.00	.00
3	.00	.00	.42	.44	.26	.44	.40	.44	.40	.00	.00	.00
4	.00	.00	.40	.44	.29	.40	.37	.44	.42	.00	.00	.00
5	.00	.00	.29	.42	.31	.40	.33	.42	.42	.00	.00	.00
6	.00	.00	.37	.42	.29	.42	.33	.42	.42	.00	.00	.00
7	.00	.00	.42	.42	.31	.42	.31	.42	.40	.00	.00	.00
8	.00	.00	.42	.42	.31	.42	.33	.42	.42	.00	.00	.00
9	.00	.00	.44	.42	.29	.46	.33	.42	.42	.00	.00	.00
10	.00	.00	.00	.42	.27	.46	.33	.42	.40	.00	.00	.00
11	.00	.00	.00	.42	.26	.46	.33	.42	.40	.00	.00	.00
12	.00	.00	.00	.42	.00	.46	.31	.40	.40	.00	.00	.00
13	.00	.00	.00	.44	.00	.46	.31	.40	.40	.00	.00	.00
14	.00	.00	.27	.44	.00	.46	.31	.40	.40	.00	.00	.00
15	.00	.00	.27	.42	.00	.49	.31	.40	.37	.00	.00	.00
16	.00	.00	.27	.42	.40	.49	.31	.40	.40	.00	.00	.00
17	.00	.00	.27	.42	.42	.49	.33	.40	.40	.00	.00	.00
18	.00	.00	.27	.42	.44	.44	.31	.35	.40	.00	.00	.00
19	.00	.00	.27	.42	.44	.49	.31	.35	.42	.00	.00	.00
20	.00	.00	.27	.00	.44	.46	.44	.35	.42	.00	.00	.00
21	.00	.00	.27	.00	.44	.44	.44	.35	.42	.00	.00	.00
22	.00	.00	.27	.00	.42	.42	.40	.35	.00	.00	.00	.00
23	.00	.00	.27	.00	.37	.44	.40	.35	.00	.00	.00	.00
24	.00	.00	.27	.00	.37	.40	.42	.35	.00	.00	.00	.00
25	.00	.00	.27	.00	.40	.40	.44	.35	.00	.00	.00	.00
26	.00	.00	.27	.00	.44	.37	.42	.40	.00	.00	.00	.00
27	.00	.00	.27	.00	.40	.37	.40	.40	.00	.00	.00	.00
28	.00	.00	.29	.00	.37	.37	.37	.40	.00	.00	.00	.00
29	.00	.00	.44	.00	---	.37	.37	.37	.00	.00	.00	.00
30	.00	.00	.44	.00	---	.37	.37	.40	.00	.00	.00	.00
31	.00	---	.46	.00	---	.37	---	.42	---	.00	.00	---
TOTAL	0.00	0.00	8.84	8.12	8.46	13.23	10.83	12.21	8.57	0.00	0.00	0.00
MEAN	.000	.000	.29	.26	.30	.43	.36	.39	.29	.000	.000	.000
MAX	.00	.00	.46	.46	.44	.49	.44	.44	.42	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.37	.31	.35	.00	.00	.00	.00
AC-FT	.00	.00	18	16	17	26	21	24	17	.00	.00	.00

WTR YR 1993 TOTAL 70.26 MEAN .19 MAX .49 MIN .00 AC-FT 139

11477450 SULPHUR CREEK BELOW DIVERSION DAM, NEAR DINSMORE, CA

LOCATION.--Lat 40°27'50", long 123°36'15", in NW 1/4 SW 1/4 sec.15, T.1 N., R.5 E., Humboldt County, Hydrologic Unit 18010105, on right bank 2 mi south-southeast of Dinsmore.

DRAINAGE AREA.--1.06 mi^2.

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder and 90° V-notch weir. Elevation of gage is 3,660 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. The gage measures fishwater release only. Water diverted upstream to Mill and Sulphur Creek Powerplant.

COOPERATION.--Records provided by North Coast Hydroelectric, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 0.72 ft^3/s, Feb. 19, 1992; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.44	.49	.54	.42	.60	.00	.00	.00
2	.00	.00	.49	.00	.46	.56	.56	.42	.56	.00	.00	.00
3	.00	.00	.51	.00	.49	.60	.69	.46	.54	.00	.00	.00
4	.00	.00	.46	.49	.54	.49	.56	.49	.56	.00	.00	.00
5	.00	.00	.44	.46	.56	.33	.56	.40	.56	.00	.00	.00
6	.00	.00	.49	.46	.54	.29	.46	.37	.51	.00	.00	.00
7	.00	.00	.51	.56	.54	.00	.00	.37	.49	.00	.00	.00
8	.00	.00	.00	.56	.54	.63	.00	.35	.51	.00	.00	.00
9	.00	.00	.00	.54	.49	.63	.00	.33	.49	.00	.00	.00
10	.00	.00	.00	.51	.46	.63	.00	.33	.46	.00	.00	.00
11	.00	.00	.00	.51	.44	.63	.00	.40	.44	.00	.00	.00
12	.00	.00	.00	.51	.42	.60	.00	.37	.46	.00	.00	.00
13	.00	.00	.00	.54	.40	.60	.42	.35	.46	.00	.00	.00
14	.00	.00	.00	.56	.40	.60	.40	.35	.46	.00	.00	.00
15	.00	.00	.00	.56	.37	.63	.37	.35	.46	.00	.00	.00
16	.00	.00	.00	.56	.63	.69	.37	.35	.46	.00	.00	.00
17	.00	.00	.00	.56	.56	.00	.42	.35	.46	.00	.00	.00
18	.00	.00	.00	.54	.60	.00	.00	.37	.46	.00	.00	.00
19	.00	.00	.00	.63	.66	.69	.00	.37	.00	.00	.00	.00
20	.00	.00	.00	.00	.64	.63	.49	.37	.00	.00	.00	.00
21	.00	.00	.00	.00	.42	.54	.46	.37	.00	.00	.00	.00
22	.00	.00	.49	.60	.00	.54	.00	.35	.00	.00	.00	.00
23	.00	.00	.49	.56	.54	.60	.00	.35	.00	.00	.00	.00
24	.00	.00	.49	.51	.51	.00	.00	.35	.00	.00	.00	.00
25	.00	.00	.49	.51	.54	.00	.00	.35	.00	.00	.00	.00
26	.00	.00	.49	.51	.56	.00	.00	.33	.00	.00	.00	.00
27	.00	.00	.49	.51	.51	.00	.44	.00	.00	.00	.00	.00
28	.00	.00	.54	.49	.49	.00	.44	.00	.00	.00	.00	.00
29	.00	.00	.54	.46	---	.49	.42	.00	.00	.00	.00	.00
30	.00	.00	.54	.46	---	.49	.42	.00	.00	.00	.00	.00
31	.00	---	.00	.44	---	.49	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	7.46	13.60	13.75	12.87	8.02	9.67	8.94	0.00	0.00	0.00
MEAN	.000	.000	.24	.44	.49	.42	.27	.31	.30	.000	.000	.000
MAX	.00	.00	.54	.63	.66	.69	.69	.49	.60	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	15	27	27	26	16	19	18	.00	.00	.00

WTR YR 1993 TOTAL 74.31 MEAN .20 MAX .69 MIN .00 AC-FT 147

11477475 MILL CREEK BELOW SULPHUR CREEK, AT DINSMORE, CA

LOCATION.--Lat 40°28'59", long 123°36'28", in SE 1/4 NE 1/4 sec.9, T.1 N., R.5 E., Humboldt County, Hydrologic Unit 18010105, on right bank 300 ft downstream of confluence of Mill and Sulphur Creeks and 0.6 mi aouth of Dinsmore.

DRAINAGE AREA.--3.11 mi^2.

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-atage recorder and V-notch weir. Elevetion of gege is 2,550 ft above sea level, from topographic map.

REMARKS.--Record of creek only includes water retained in Mill and Sulphur Creeks for fishery enhancement plus any additional water not diverted for power development at Mill and Sulphur Creek Powerplant. Stage-discharge relation above 34 ft^3/s not determined. Combined flow includes flow to powerplant and repreaenta all flow from drainage area. See following page for records of combined discharge of creek and powerplant.

COOPERATION.--Records provided by North Coast Hydroelectric, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Reguletory Commission project.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 140 ft^3/s, Mar. 3, 1991, gege height 2.02 ft; maximum gege height, 3.63 ft, Jan. 19, 1993, discharge not determined; no flow for many deys.
Combined flow, maximum daily discharge, 63 ft^3/s, Mar. 4, 1991; exceeded by maximum deily diacharge for 1993 water year, discharge not determined; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Creek only, maximum discharge for Jan. 19 not determined, gage height 3.63 ft; no flow for many days.
Combined flow, maximum daily discharge for Jan. 19 not determined; no flow for many daya.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	2.1	1.2	---	8.0	5.4	14	4.6	---	.90	.10	.01
2	.00	3.8	2.1	25	7.3	14	20	4.3	28	.90	e.10	.01
3	.00	2.6	2.1	18	7.6	25	29	8.8	18	.90	e.09	.00
4	.00	1.2	1.6	14	8.0	14	---	21	21	.82	e.09	.00
5	.00	.82	1.5	8.0	22	12	30	12	24	.74	.08	.00
6	.00	.61	3.6	8.0	19	17	17	7.0	17	.68	.08	.00
7	.00	.55	5.7	24	17	17	9.7	5.7	8.8	.68	.08	.00
8	.00	.49	---	13	25	14	11	4.6	7.0	.61	.08	.00
9	.00	.44	---	10	27	13	14	3.6	4.3	.55	.06	.00
10	.00	.38	---	8.8	27	17	20	3.0	3.8	.49	.06	.00
11	.00	.34	30	7.6	33	13	11	2.8	3.4	.49	.06	.00
12	.00	.29	14	7.0	21	11	7.0	3.0	3.0	.55	.06	.00
13	.00	.25	8.0	11	12	15	6.3	4.1	2.6	.49	.06	.00
14	.00	.22	7.0	34	8.4	18	5.7	3.6	2.4	.44	e.06	.00
15	.00	e.23	7.0	21	6.6	---	5.1	3.0	2.4	.38	e.06	.00
16	.00	.25	7.0	23	6.0	---	4.9	2.8	2.2	.34	e.06	.00
17	.00	.29	6.6	17	7.0	---	---	2.4	1.9	.34	e.05	.00
18	.00	.34	6.0	14	21	---	---	2.1	2.1	.29	e.05	.00
19	.00	1.3	5.1	---	---	33	24	2.8	1.9	.29	e.05	.00
20	.00	1.2	6.0	---	32	18	15	4.6	1.8	.29	.05	.00
21	.00	1.8	7.3	---	21	10	9.3	4.1	1.8	.29	.05	.00
22	.00	3.4	6.6	---	13	7.6	7.6	3.6	1.6	.25	.05	.00
23	.00	2.8	6.0	---	16	---	18	3.2	1.6	.25	.05	.00
24	.00	2.4	6.0	15	12	23	15	3.2	1.5	.25	.05	.00
25	.00	1.9	5.7	12	11	13	8.8	3.6	1.4	.25	.04	.00
26	.00	1.9	5.4	11	12	7.3	7.3	27	1.3	.22	.04	.00
27	.00	3.6	5.7	11	7.6	6.0	6.6	21	1.2	.18	.03	.00
28	.00	2.6	14	11	5.1	4.9	6.3	16	1.1	.16	.03	.00
29	.10	2.1	11	9.7	---	4.1	6.0	9.7	.98	.16	e.02	.00
30	1.9	1.4	11	9.8	---	3.8	5.4	32	.98	.13	e.02	.00
31	2.1	---	---	8.8	---	4.6	---	---	---	.13	e.01	---
TOTAL	4.10	41.60	---	---	---	---	---	---	---	13.44	1.77	0.02
MEAN	.13	1.39	---	---	---	---	---	---	---	.43	.057	.001
MAX	2.10	3.80	---	---	---	---	---	---	---	.90	.10	.01
MIN	.00	.22	---	---	---	---	---	---	---	.13	.01	.00
AC-FT	8.1	83	---	---	---	---	---	---	---	27	3.5	.04

a Estimated.

11477475 MILL CREEK BELOW SULPHUR CREEK, AT DINSMORE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.059	.94	1.97	4.73	8.44	10.3	6.25	2.10	.75	.27	.019	.000
MAX	.13	1.39	2.69	5.85	12.6	13.0	6.83	2.86	1.21	.43	.057	.001
(WY)	1993	1993	1992	1992	1992	1991	1991	1991	1991	1993	1993	1993
MIN	.000	.18	1.25	3.62	4.16	7.55	5.66	1.35	.28	.14	.000	.000
(WY)	1991	1991	1991	1991	1991	1992	1992	1992	1992	1992	1992	1991

SUMMARY STATISTICS	WATER YEARS 1991 - 1993		
ANNUAL MEAN	2.93		
HIGHEST ANNUAL MEAN	3.08		1992
LOWEST ANNUAL MEAN	2.78		1991
HIGHEST DAILY MEAN	52.0	Mar 4	1991
LOWEST DAILY MEAN	.00	Oct 1	1990
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 1	1990
INSTANTANEOUS PEAK FLOW	140	Mar 3	1991
INSTANTANEOUS PEAK STAGE	3.63	Jan 19	1993
ANNUAL RUNOFF (AC-FT)	2120		
10 PERCENT EXCEEDS	11		
50 PERCENT EXCEEDS	1.1		
90 PERCENT EXCEEDS	.00		

11477475 MILL CREEK BELOW SULPHUR CREEK, AT DINSMORE, CA--Continued

MILL CREEK AND MILL AND SULPHUR CREEK POWERPLANT
COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	2.1	1.2	---	15	9.6	23	8.5	---	.90	.10	.01
2	.00	3.8	3.2	25	14	21	32	7.2	40	.90	e.10	.01
3	.00	2.6	2.1	18	15	29	41	17	30	.90	e.09	.00
4	.00	1.2	1.6	17	15	18	---	30	33	.82	e.09	.00
5	.00	.82	1.5	14	32	24	42	20	29	.74	.08	.00
6	.00	.61	3.6	13	30	29	29	15	27	.68	.08	.00
7	.00	.55	6.8	32	28	29	21	13	19	.68	.08	.00
8	.00	.49	---	20	35	26	22	9.6	15	.61	.08	.00
9	.00	.44	---	16	36	25	26	8.3	11	.55	.06	.00
10	.00	.38	---	14	39	29	32	6.9	9.6	.49	.06	.00
11	.00	.34	41	13	45	25	23	6.4	8.1	.49	.06	.00
12	.00	.29	23	12	33	23	18	7.1	6.9	.55	.06	.00
13	.00	.25	15	18	23	27	15	9.6	5.7	.49	.06	.00
14	.00	.22	13	45	18	30	15	8.3	4.9	.44	e.06	.00
15	.00	e.23	13	31	13	---	12	6.5	4.5	.38	e.06	.00
16	.00	.25	12	32	12	---	12	5.6	3.8	.34	e.06	.00
17	.00	.29	11	25	11	---	---	4.8	2.8	.34	e.05	.00
18	.00	.34	9.6	21	29	---	---	4.1	2.1	.29	e.05	.00
19	.00	1.3	7.9	---	---	45	36	6.8	1.9	.29	e.05	.00
20	.00	1.2	10	---	38	30	27	13	1.8	.29	.05	.00
21	.00	1.8	13	---	25	22	21	11	1.8	.29	.05	.00
22	.00	3.4	11	---	18	19	18	9.3	1.6	.25	.05	.00
23	.00	2.8	10	---	21	---	27	7.7	1.6	.25	.05	.00
24	.00	2.4	11	26	19	35	26	7.5	1.5	.25	.05	.00
25	.00	1.9	11	23	16	25	21	7.6	1.4	.25	.04	.00
26	.00	1.9	9.9	22	12	18	18	37	1.3	.22	.04	.00
27	.00	3.6	10	22	10	15	16	33	1.2	.18	.03	.00
28	.00	2.6	19	22	9.2	12	14	28	1.1	.16	.03	.00
29	.10	2.1	13	19	---	10	13	21	.98	.16	e.02	.00
30	1.9	1.4	11	18	---	9.3	11	44	.98	.13	e.02	.00
31	2.1	---	---	16	---	10	---	---	---	.13	e.01	---
TOTAL	4.10	41.60	---	---	---	---	---	---	---	13.44	1.77	0.02
MEAN	.13	1.39	---	---	---	---	---	---	---	.43	.057	.001
MAX	2.10	3.80	---	---	---	---	---	---	---	.90	.10	.01
MIN	.00	.22	---	---	---	---	---	---	---	.13	.01	.00
AC-FT	8.1	83	---	---	---	---	---	---	---	27	3.5	.04

e Estimated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1993, BY WATER YEAR (WY)

MEAN	.059	.94	1.97	5.89	12.6	15.2	11.4	3.06	.75	.27	.019	.000
MAX	.13	1.39	2.69	7.12	18.4	18.4	13.7	4.76	1.21	.43	.057	.001
(WY)	1993	1993	1992	1992	1992	1991	1991	1991	1991	1993	1993	1993
MIN	.000	.18	1.25	4.65	6.60	12.0	9.07	1.35	.28	.14	.000	.000
(WY)	1991	1991	1991	1991	1991	1992	1992	1992	1992	1992	1992	1991

SUMMARY STATISTICS WATER YEARS 1991 - 1993

ANNUAL MEAN	4.27		
HIGHEST ANNUAL MEAN	4.31		1992
LOWEST ANNUAL MEAN	4.23		1991
HIGHEST DAILY MEAN	63.0	Mar 4	1991
LOWEST DAILY MEAN	.00	Oct 1	1990
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 1	1990
ANNUAL RUNOFF (AC-FT)	3090		
10 PERCENT EXCEEDS	21		
50 PERCENT EXCEEDS	1.1		
90 PERCENT EXCEEDS	.00		

11478500 VAN DUZEN RIVER NEAR BRIDGEVILLE, CA

LOCATION.--Lat 40°28'50", long 123°53'23", in NE 1/4 SE 1/4 sec.12, T.1 N., R.2 E., Humboldt County, Hydrologic Unit 18010105, on left bank at downstream side of bridge on State Highway 36, 0.9 mi upstream from Grizzly Creek, and 5 mi west of Bridgeville.

DRAINAGE AREA.--222 mi^2.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1735: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 358.18 ft above sea level. Prior to Oct. 1, 1965, at site 2.4 mi upstream at different datum.

REMARKS.--Records fair. No storage or large diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,700 ft^3/s, Dec. 22, 1964, gage height, 24.0 ft, from floodmarks, present site and datum, from rating curve extended above 20,000 ft^3/s on basis of slope-area measurement at gage height 21.3 ft, former site and datum; minimum daily, 4.4 ft^3/s, Sept. 28, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 10	1245	17,100	12.53	Jan. 20	1130	*41,300	*19.14

Minimum daily, 5.6 ft^3/s, Oct. 13-19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	627	102	4890	888	1020	1810	752	3160	142	48	20
2	7.1	543	144	2260	782	1560	2000	702	2430	130	46	20
3	7.4	281	244	1610	745	2070	1720	1070	1870	126	42	20
4	8.3	183	178	1330	785	1730	3100	1810	2030	118	40	20
5	7.3	134	144	1130	1310	1490	2420	1210	2060	114	38	20
6	7.1	104	170	1020	1420	1470	1760	1010	1700	111	37	19
7	6.4	87	772	2450	1260	1450	1450	901	1480	110	37	17
8	6.1	75	3160	2020	1300	1400	1520	860	1240	105	37	17
9	5.9	65	6900	e1670	1430	1290	1830	744	1050	101	36	17
10	5.9	58	e11000	1350	1460	1430	1970	630	942	96	34	16
11	5.9	53	e5120	1090	2470	1360	1660	627	809	92	34	15
12	5.8	50	2480	904	2170	1160	1380	630	679	88	34	15
13	5.6	47	1610	1200	1630	1110	1210	761	578	84	33	15
14	5.6	45	1250	3780	1260	1170	1050	600	512	84	32	15
15	5.6	42	1080	2460	1090	2190	951	491	464	83	32	15
16	5.6	41	876	3210	862	2230	878	452	424	81	32	15
17	5.6	41	1240	2080	843	8650	3620	424	372	79	32	15
18	5.6	41	950	1690	1730	e6900	3900	381	317	76	32	15
19	5.6	68	745	2020	3690	3530	2310	420	286	74	32	15
20	6.4	117	780	24300	3060	2250	1740	793	268	72	32	15
21	14	107	919	8990	2340	1790	1490	725	253	68	32	15
22	18	691	882	8950	2210	1510	1270	599	238	65	32	15
23	19	303	724	3500	2530	3350	1570	493	224	67	32	15
24	15	194	674	2520	2160	2490	1830	446	210	68	29	15
25	13	152	630	2180	1720	1830	1430	476	194	66	28	14
26	12	122	582	1920	1400	1520	1380	2110	178	62	27	13
27	12	123	570	1720	1180	1300	1150	2330	178	59	26	12
28	11	169	2440	1540	1060	1140	991	1930	175	57	23	12
29	18	144	2020	1330	---	971	892	1420	157	54	23	12
30	286	118	1530	1190	---	863	841	2670	151	53	22	12
31	290	---	7870	1050	---	874	---	4700	---	51	20	---
TOTAL	833.0	4825	57787	97354	44786	63098	51123	33167	24629	2636	1014	471
MEAN	26.9	161	1864	3140	1599	2035	1704	1070	821	85.0	32.7	15.7
MAX	290	691	11000	24300	3690	8650	3900	4700	3160	142	48	20
MIN	5.6	41	102	904	745	863	841	381	151	51	20	12
AC-FT	1650	9570	114600	193100	88830	125200	101400	65790	48850	5230	2010	934

e Estimated.

11478500 VAN DUZEN RIVER NEAR BRIDGEVILLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	165	953	1838	2146	2008	1584	912	438	142	36.1	17.5	21.1
MAX	1464	5476	6046	5816	6232	4004	3255	1139	821	98.0	82.4	144
(WY)	1963	1974	1956	1970	1958	1975	1963	1953	1993	1953	1983	1986
MIN	7.20	16.8	18.8	103	156	172	131	109	40.4	12.2	5.89	5.72
(WY)	1988	1960	1977	1977	1977	1988	1977	1985	1987	1977	1977	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1951 - 1993	
ANNUAL TOTAL	186908.5		381723.0			
ANNUAL MEAN	511		1046		850	
HIGHEST ANNUAL MEAN					1610	1974
LOWEST ANNUAL MEAN					95.7	1977
HIGHEST DAILY MEAN	11000	Dec 10	24300	Jan 20	33900	Dec 22 1964
LOWEST DAILY MEAN	4.4	Sep 28	5.6	Oct 13	4.4	Sep 28 1992
ANNUAL SEVEN-DAY MINIMUM	4.7	Sep 24	5.6	Oct 13	4.6	Aug 13 1977
INSTANTANEOUS PEAK FLOW			41300	Jan 20	48700	Dec 22 1964
INSTANTANEOUS PEAK STAGE			19.14	Jan 20	24.00	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	370700		757100		615900	
10 PERCENT EXCEEDS	1300		2320		2130	
50 PERCENT EXCEEDS	121		570		176	
90 PERCENT EXCEEDS	6.4		15		12	

11479560 EEL RIVER AT FERNBRIDGE, CA

LOCATION.--Lat 40°36'57", long 124°12'06", in SW 1/4 NE 1/4 sec.29, T.3 N., R.1 W, Humboldt County, Hydrologic Unit 18010105, on right bank downstream from bridge on county road at Fernbridge.

DRAINAGE AREA.--3,614 mi^2.

PERIOD OF RECORD.--October 1989 to current year. Records prior to October 1989 are in the files of the California Department of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is 3.64 ft above sea level.

REMARKS.--Data is collected for flood-warning purposes only. Figures given represent only those days when the gage height was above 0.56 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed gage height, 15.3 ft, Jan. 8, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 23.46 ft, Jan. 21.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	.60	---	1.31	.57	---	---	18.55	13.67	4.85	4.53	5.45	5.10
2	---	---	1.46	1.31	---	---	13.67	9.47	4.53	4.25	5.20	5.08
3	---	---	1.42	.74	---	---	9.47	7.46	4.25	4.06	5.83	5.19
4	---	---	.74	.57	---	---	7.46	6.27	4.06	3.89	5.89	5.45
5	---	---	---	---	---	---	6.27	5.37	3.99	3.87	5.45	5.00
6	---	---	---	---	.77	.56	5.37	4.97	4.60	3.97	5.00	4.79
7	---	---	---	---	2.67	.56	10.00	5.14	4.60	4.37	4.83	4.71
8	---	---	---	---	7.75	2.67	9.99	8.58	4.43	4.31	4.76	4.64
9	---	---	---	---	12.98	7.75	8.58	7.49	5.28	4.35	4.67	4.51
10	---	---	---	---	13.12	10.44	7.49	6.68	5.42	5.26	4.61	4.52
11	---	---	---	---	13.48	10.19	6.68	5.76	7.80	5.28	4.69	4.46
12	---	---	---	---	10.19	7.96	5.76	5.01	7.81	6.66	4.50	4.20
13	---	---	---	---	7.96	5.67	6.25	4.86	6.66	5.66	4.24	4.07
14	---	---	---	---	5.67	4.24	11.16	6.25	5.66	5.02	4.21	4.07
15	---	---	---	---	4.24	3.42	11.14	9.33	5.02	4.56	5.17	4.21
16	---	---	---	---	3.42	2.85	10.61	9.47	4.56	4.20	5.24	5.13
17	---	---	---	---	3.14	2.80	9.90	8.42	4.20	4.02	12.26	5.24
18	---	---	---	---	3.10	2.89	8.42	7.28	6.68	4.08	12.33	11.65
19	---	---	---	---	2.89	2.32	7.74	6.55	11.08	6.68	11.65	9.28
20	---	---	---	---	2.35	2.22	23.28	7.74	11.75	10.84	9.28	7.77
21	---	---	---	---	2.66	2.24	23.46	16.67	10.84	9.62	7.77	6.76
22	---	---	1.21	.62	2.65	2.31	17.17	14.62	9.62	8.92	6.76	6.06
23	---	---	1.61	.57	2.31	1.97	14.62	11.05	11.01	8.98	7.81	6.05
24	.82	.57	1.34	.57	1.97	1.74	11.05	9.30	10.91	9.08	9.30	7.81
25	1.09	.67	1.08	.58	1.79	1.59	9.31	8.09	9.08	7.70	9.07	7.38
26	1.19	.60	1.33	.62	1.59	1.48	8.09	7.24	7.70	6.73	7.38	6.42
27	1.52	.65	---	---	1.50	1.34	7.24	6.61	6.73	5.98	6.43	5.74
28	1.05	.67	---	---	5.30	1.50	6.61	6.09	5.98	5.45	5.74	5.17
29	.97	.61	---	---	7.47	5.24	6.09	5.61	---	---	5.17	4.68
30	.86	.60	---	---	7.47	6.77	5.61	5.19	---	---	4.68	4.28
31	.75	.60	---	---	17.43	6.83	5.19	4.85	---	---	4.28	4.10

11479560 EEL RIVER AT FERNBRIDGE, CA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.04	4.12	3.43	3.21	9.20	8.50	.80	---	---	---	---	---
2	6.05	5.55	3.23	3.13	8.50	7.00	.86	---	---	---	---	---
3	5.55	5.07	3.80	3.09	7.00	5.86	.86	---	---	---	---	---
4	6.71	5.17	4.79	3.80	5.91	5.38	.64	---	---	---	---	---
5	6.86	6.22	4.79	3.74	6.78	5.91	.80	---	---	---	---	---
6	6.22	5.40	3.87	3.31	6.48	6.06	.64	---	---	---	---	---
7	5.41	4.79	3.55	3.04	6.06	5.24	---	---	---	---	---	---
8	4.89	4.59	3.16	2.83	5.24	4.59	---	---	---	---	---	---
9	5.30	4.89	2.89	2.60	4.59	4.02	---	---	---	---	---	---
10	5.59	5.30	2.63	2.43	4.03	3.57	---	---	---	---	---	---
11	5.42	4.91	2.48	2.41	3.57	3.21	---	---	---	---	---	---
12	4.91	4.41	2.53	2.43	3.21	2.85	---	---	---	---	---	---
13	4.41	4.02	2.66	2.41	2.85	2.58	---	---	---	---	---	---
14	4.02	3.69	2.45	2.22	2.58	2.37	---	---	---	---	---	---
15	3.70	3.55	2.22	2.00	2.37	2.14	---	---	---	---	---	---
16	3.55	3.42	2.00	1.87	2.14	1.98	---	---	---	---	---	---
17	7.48	3.42	1.87	1.80	1.99	1.80	---	---	---	---	---	---
18	8.89	7.48	1.80	1.68	1.88	1.64	---	---	---	---	---	---
19	8.14	6.62	1.83	1.61	1.76	1.49	---	---	---	---	---	---
20	6.62	5.76	2.11	1.69	1.69	1.34	---	---	---	---	---	---
21	5.76	5.29	2.25	2.01	1.56	1.20	---	---	---	---	---	---
22	5.29	4.75	2.28	1.93	1.33	1.09	---	---	---	---	---	---
23	5.60	4.62	2.09	1.64	1.14	.98	---	---	---	---	---	---
24	6.27	5.60	1.81	1.52	.99	.89	---	---	---	---	---	---
25	6.07	5.12	1.66	1.52	.89	.79	---	---	---	---	---	---
26	5.12	4.73	4.92	1.56	.79	.67	---	---	---	---	---	---
27	4.73	4.31	5.97	4.92	.79	.59	---	---	---	---	---	---
28	4.31	3.89	5.82	4.91	.77	---	---	---	---	---	---	---
29	3.89	3.57	4.91	3.94	.73	---	---	---	---	---	---	---
30	3.57	3.37	5.68	3.87	.73	---	---	---	---	---	---	---
31	---	---	9.34	5.68	---	---	---	---	---	---	---	---

11480390 MAD RIVER ABOVE RUTH RESERVOIR, NEAR FOREST GLEN, CA

LOCATION.--Lat 40°17'04", long 123°20'03", in NW 1/4 NE 1/4 sec.24, T.2 S., R.7 E., Trinity County, Hydrologic Unit 18010102, Six Rivers National Forest, near right bank on downstream end of pier of Zenia Road Bridge, 500 ft downstream from unnamed creek, 0.4 mile downstream from Tompkins Creek, and 6.1 mi southwest of Forest Glen.

DRAINAGE AREA.--93.8 mi^2.

PERIOD OF RECORD.--June 1980 to current year. Discharge measurements only September to December 1971, July 1972, June to September 1977.

REVISED RECORDS.--WDR CA-80-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,700 ft above sea level, from topographic map. June 28 to Sept. 30, 1990, nonrecording gage 400 ft upstream at different datum.

REMARKS.--Records fair except for discharges below 10 ft^3/s, which are poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s, Feb. 17, 1986, gage height, 11.39 ft in gage, 12.94 ft from crest-stage gage, from rating curve extended above 5,000 ft^3/s, maximum gage height 13.10 ft, Jan. 20, 1993; no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 10	1445	3,890	7.77	Jan. 20	1415	*11,700	*13.10
Dec. 31	1815	3,330	7.35	Mar. 17	0630	3,610	7.54

No flow for many days in September.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	62	10	1630	330	356	332	168	1100	39	15	.18
2	.62	84	16	861	299	452	333	152	743	37	14	.20
3	.55	58	25	567	288	794	310	201	516	37	13	.16
4	.51	41	26	457	304	764	540	262	530	34	12	.13
5	.48	31	23	400	439	668	555	201	598	34	11	.09
6	.49	25	59	392	477	676	449	181	519	31	10	.06
7	.46	20	232	1100	445	644	370	160	422	29	9.1	.03
8	.46	17	1180	958	470	567	359	152	326	27	8.5	.00
9	.46	15	1940	708	573	492	377	140	258	25	7.6	.00
10	.45	12	e2400	559	558	499	466	134	211	24	6.6	.00
11	.41	11	e1320	440	839	418	413	126	169	23	6.2	.00
12	.53	10	e748	372	718	363	357	127	138	21	5.7	.00
13	.47	9.2	510	566	572	334	312	118	126	20	4.9	.00
14	.39	8.4	396	2020	453	349	277	116	113	19	4.6	.00
15	.35	7.7	368	1300	369	463	264	110	106	21	4.1	.00
16	.35	7.5	323	1350	309	665	237	104	101	23	3.5	.00
17	.37	7.9	368	1100	297	3100	652	100	92	23	3.0	.00
18	.40	7.1	311	836	478	2640	998	94	86	24	2.4	.00
19	.35	10	272	836	1100	1520	698	95	79	24	1.9	.00
20	.40	17	295	e8110	1140	1010	522	104	77	24	1.6	.00
21	.43	27	352	e4490	765	733	435	96	71	24	1.3	.00
22	.34	112	336	e3780	627	560	340	87	66	24	1.1	.00
23	.29	66	295	1700	730	1030	383	82	62	24	.83	.00
24	.29	37	275	992	712	1390	452	77	61	24	.61	.00
25	.29	26	259	740	548	960	369	81	56	23	.50	.00
26	.29	20	236	666	440	701	330	157	52	23	.50	.00
27	.28	18	222	619	380	537	278	211	48	21	.40	.00
28	.26	16	304	560	364	422	235	174	46	20	.38	.00
29	.96	13	327	479	---	347	202	152	44	19	.32	.00
30	5.0	11	312	425	---	296	181	495	42	18	.24	.00
31	10	---	1740	376	---	272	---	1490	---	17	.19	---
TOTAL	27.63	806.8	15480	39389	15024	24022	12026	5947	6858	776	151.07	0.85
MEAN	.89	26.9	499	1271	537	775	401	192	229	25.0	4.87	.028
MAX	10	112	2400	8110	1140	3100	998	1490	1100	39	15	.20
MIN	.26	7.1	10	372	288	272	181	77	42	17	.19	.00
AC-FT	55	1600	30700	78130	29800	47650	23850	11800	13600	1540	300	1.7

e Estimated.

11480390 MAD RIVER ABOVE RUTH RESERVOIR, NEAR FOREST GLEN, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.61	216	408	418	569	494	247	102	51.5	7.88	1.37	1.36
MAX	57.6	741	1198	1271	2136	1202	878	260	229	25.0	4.87	12.2
(WY)	1990	1985	1982	1993	1986	1989	1982	1990	1993	1993	1993	1986
MIN	.000	.29	8.08	28.5	85.3	38.6	32.0	20.4	5.31	1.27	.000	.000
(WY)	1988	1988	1991	1991	1991	1988	1988	1987	1987	1985	1984	1984

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1980 - 1993	
ANNUAL TOTAL	43637.16		120508.35			
ANNUAL MEAN	119		330		209	
HIGHEST ANNUAL MEAN					414	1983
LOWEST ANNUAL MEAN					69.5	1991
HIGHEST DAILY MEAN	2400	Dec 10	8110	Jan 20	9660	Feb 17 1986
LOWEST DAILY MEAN	.26	Oct 28	.00	Sep 8	.00	Oct 8 1980
ANNUAL SEVEN-DAY MINIMUM	.29	Oct 22	.00	Sep 8	.00	Sep 11 1982
INSTANTANEOUS PEAK FLOW			11700	Jan 20	15000	Feb 17 1986
INSTANTANEOUS PEAK STAGE			13.10	Jan 20	13.10	Jan 20 1993
ANNUAL RUNOFF (AC-FT)	86550		239000		151100	
10 PERCENT EXCEEDS	322		754		557	
50 PERCENT EXCEEDS	21		104		29	
90 PERCENT EXCEEDS	.69		.29		.00	

11480400 RUTH RESERVOIR NEAR FOREST GLEN, CA

LOCATION.--Lat 40°22'08", long 123°25'56", in NW 1/4 NW 1/4 sec.19, T.1 S., R.7 E., Trinity County, Hydrologic Unit 18010102, Six Rivers National Forest, near center of Robert W. Matthews Dam on Mad River, 5.6 mi west of Forest Glen.

DRAINAGE AREA.--121 mi^2.

PERIOD OF RECORD.--October 1966 to current year. Records prior to October 1966 in files of Humboldt Bay Municipal Water District.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by Humboldt Bay Municipal Water District).

REMARKS.--Reservoir is formed by earthfill dam; storage began July 1961. Total capacity, 48,000 acre-ft at elevation 2,654.0 ft, crest of spillway. Minimum pool capacity, 7,810 acre-ft at elevation 2,600 ft. Water is released down Mad River for municipal use. Records given represent total contents at 2400 hours.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 68,000 acre-ft, Feb. 17, 1986, elevation, 2,667.06 ft; minimum, 11,700 acre-ft, Oct. 24-28, 1977; minimum elevation, 2,607.13 ft, Oct. 28, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 59,800 acre-ft, Jan. 20, elevation, 2,663.73 ft; minimum contents, 21,100 acre-ft, Nov. 21, elevation, 2,624.45 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Humboldt Bay Municipal Water District in 1977)

2,595	5,920	2,620	18,100	2,645	38,600
2,600	7,810	2,625	21,500	2,650	43,700
2,605	10,000	2,630	25,300	2,655	49,200
2,610	12,500	2,635	29,400	2,660	55,100
2,615	15,100	2,640	33,800	2,664	60,200

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25800	22000	21900	e50000	49300	49200	49200	48700	50900	47500	46200	43700
2	25700	22100	21900	50100	49200	49400	49200	48600	50400	47500	46100	43600
3	25500	22100	22000	49500	49200	50000	49200	48700	49900	47500	46000	43500
4	25400	22200	22000	49100	49200	50000	49600	48800	49800	47400	45900	43400
5	25200	22200	22100	48900	49400	50000	49700	48700	49800	47400	45900	43300
6	25100	22200	22300	48900	49400	49900	49500	48700	49700	47400	45800	43200
7	24900	22200	22800	50000	49400	49900	49400	48600	49500	47400	45700	43100
8	24700	22100	25300	49900	49400	49700	49300	48500	49300	47400	45600	43000
9	24600	22000	29500	49600	49500	49600	49400	48400	49100	47400	45600	42900
10	24400	21900	34500	49300	49700	49600	49500	48600	49000	47400	45500	42800
11	24200	21900	37000	49000	50100	49400	49400	48800	48800	47300	45400	42700
12	24100	21800	38300	48800	50000	49300	49300	48800	48700	47300	45300	42600
13	23900	21700	39100	49300	49700	49200	49200	48700	48600	47200	45200	42500
14	23700	21600	39800	51000	49500	49200	49000	48400	48400	47200	45100	42400
15	23600	21500	40400	50800	49300	49400	48900	48300	48300	47100	45000	42200
16	23400	21400	40900	50700	49100	50200	48800	48100	48200	47100	45000	42200
17	23300	21300	41400	50300	49200	53100	49800	48100	48100	47000	44900	42000
18	23200	21200	41600	49900	49500	52800	50400	48100	48000	47000	44800	41900
19	23000	21100	41600	50600	50800	51600	50100	48000	47800	46900	44700	41800
20	23000	21100	41600	59000	50800	50800	49800	47900	47700	46900	44700	41600
21	22800	21200	41800	e56100	50400	50300	49600	47900	47600	46800	44600	41500
22	22700	21400	42300	e54200	50100	49900	49400	47900	47600	46800	44500	41400
23	22600	21500	42700	52000	50200	50600	49500	47800	47600	46700	44400	41300
24	22400	21600	43000	50900	50100	50900	49500	47800	47600	46700	44300	41200
25	22300	21600	43400	50300	49800	50500	49400	47700	47600	46600	44300	41100
26	22100	21700	43700	50100	49500	50100	49200	48400	47500	46500	44200	40900
27	22000	21700	44000	49900	49300	49800	49100	48700	47500	46500	44100	40800
28	21800	21800	44400	49800	49300	49500	49000	48700	47500	46400	44000	40700
29	21900	21800	44800	49600	---	49300	48900	48800	47500	46400	43900	40600
30	21900	21900	45100	49500	---	49100	48800	49800	47500	46300	43800	40500
31	21900	---	e47900	49400	---	49000	---	51100	---	46200	43700	---
MAX	25800	22200	47900	59000	50800	53100	50400	51100	50900	47500	46200	43700
MIN	21800	21100	21900	48800	49100	49000	48800	47700	47500	46200	43700	40500
a	2625.55	2625.48	2653.92	2655.19	2655.10	2654.90	2654.64	2656.68	2653.52	2652.38	2650.07	2646.92
b	-4100	0	+26000	+1500	-100	-300	-200	+2300	-3600	-1300	-2500	-3200

CAL YR 1992 MAX 50500 MIN 21100 b +23500
WTR YR 1993 MAX 59000 MIN 21100 b +14500

e Estimated.
a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

11480410 MAD RIVER BELOW RUTH RESERVOIR, NEAR FOREST GLEN, CA

LOCATION.--Lat 40°22'16", long 123°26'06", in SW 1/4 SW 1/4 sec.18, T.1 S., R.7 E., Trinity County, Hydrologic Unit 18010102, Six Rivers National Forest, 1,200 ft downstream from Robert W. Matthews Dam, and 5.8 mi west of Forest Glen.

DRAINAGE AREA.--121 mi^2.

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,560 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good except for discharges below 10 ft^3/s, which are poor. Flow regulated by Ruth Reservoir (station 11480400) 1,200 ft upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,800 ft^3/s, Feb. 17, 1986, gage height, 17.61 ft, from floodmarks, from rating curve extended above 8,800 ft^3/s; minimum daily, 5.6 ft^3/s, Mar. 2, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,000 ft^3/s, Jan. 20, gage height, 13.96 ft; minimum daily, 7.0 ft^3/s, Dec. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	8.2	7.3	699	500	525	467	335	1600	60	44	46
2	76	8.0	7.3	900	449	534	495	308	1280	60	44	46
3	72	14	7.3	796	378	749	475	307	973	60	44	46
4	71	16	7.3	626	418	906	587	338	809	60	44	53
5	71	15	7.3	483	553	886	715	357	816	56	44	58
6	71	15	7.6	408	619	860	690	335	787	48	44	53
7	76	25	7.7	705	611	836	617	309	704	45	44	53
8	84	39	9.4	958	613	777	568	287	608	42	44	53
9	84	41	9.9	831	655	705	580	273	522	42	44	53
10	82	41	11	668	680	686	627	131	451	42	44	53
11	82	41	10	529	874	633	623	103	396	42	45	53
12	82	44	9.5	430	963	566	574	189	352	44	46	53
13	82	49	9.1	443	843	510	516	290	322	44	45	53
14	78	49	8.9	1250	710	492	466	286	292	44	45	53
15	75	49	8.9	1530	596	562	427	246	266	44	45	53
16	67	49	7.0	1500	502	661	394	228	243	44	45	53
17	64	49	10	1300	457	2470	531	166	233	44	45	58
18	65	49	137	1020	563	3380	1030	110	229	44	46	63
19	63	40	239	877	982	2480	1040	194	228	44	46	63
20	60	19	241	8070	1530	1700	872	222	182	44	46	63
21	55	7.7	150	8090	1260	1220	741	191	151	44	46	63
22	52	7.7	8.7	6070	1000	942	623	149	132	44	46	63
23	61	7.5	8.7	3170	991	997	571	149	108	43	46	63
24	77	7.5	8.5	1870	993	1450	627	150	103	44	45	63
25	77	7.4	8.5	1240	860	1350	593	145	94	44	45	63
26	77	7.3	8.5	956	720	1080	544	118	90	45	45	63
27	71	7.4	8.5	848	621	873	493	276	85	44	46	63
28	62	7.1	132	753	560	721	448	348	76	44	46	63
29	46	7.3	89	688	---	603	403	342	61	44	46	63
30	43	7.3	8.9	619	---	510	366	493	60	44	47	62
31	22	---	12	559	---	455	---	1360	---	44	46	---
TOTAL	2129	734.4	1205.8	48886	20501	31119	17703	8735	12253	1437	1398	1709
MEAN	68.7	24.5	38.9	1577	732	1004	590	282	408	46.4	45.1	57.0
MAX	84	49	241	8090	1530	3380	1040	1360	1600	60	47	63
MIN	22	7.1	7.0	408	378	455	366	103	60	42	44	46
AC-FT	4220	1460	2390	96970	40660	61720	35110	17330	24300	2850	2770	3390

11480410 MAD RIVER BELOW RUTH RESERVOIR, NEAR FOREST GLEN, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	92.8	181	448	457	745	663	363	137	99.5	69.6	86.2	91.7
MAX	118	607	1738	1577	2993	1616	1426	363	408	89.3	103	101
(WY)	1984	1985	1982	1993	1986	1989	1982	1983	1993	1987	1990	1986
MIN	64.4	24.5	8.35	8.02	7.61	24.4	28.0	47.8	38.2	42.5	45.1	57.0
(WY)	1982	1993	1987	1992	1991	1988	1988	1987	1991	1982	1993	1993

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1981 - 1993	
ANNUAL TOTAL	39173.1		147810.2			
ANNUAL MEAN	107		405		284	
HIGHEST ANNUAL MEAN					591	1983
LOWEST ANNUAL MEAN					101	1991
HIGHEST DAILY MEAN	1320	Feb 22	8090	Jan 21	13400	Feb 17 1986
LOWEST DAILY MEAN	7.0	Dec 16	7.0	Dec 16	5.6	Mar 2 1991
ANNUAL SEVEN-DAY MINIMUM	7.3	Nov 28	7.3	Nov 28	6.0	Feb 19 1991
INSTANTANEOUS PEAK FLOW			14000	Jan 20	17800	Feb 17 1986
INSTANTANEOUS PEAK STAGE			13.96	Jan 20	17.61	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	77700		293200		205500	
10 PERCENT EXCEEDS	235		920		686	
50 PERCENT EXCEEDS	81		89		94	
90 PERCENT EXCEEDS	7.9		12		34	

11480500 MAD RIVER NEAR FOREST GLEN, CA

LOCATION.--Lat 40°27'30", long 123°30'35", in SW 1/4 sec.16, T.1 N., R.6 E., Trinity County, Hydrologic Unit 18010102, Six Rivers Nationel Forest, on right bank 0.7 mi downstream from Lamb Creek and 11.1 mi northwest of Forest Glen.

DRAINAGE AREA.--143 mi^2.

PERIOD OF RECORD.--June 1953 to current year.

REVISED RECORDS.--WSP 1395: 1954. WSP 1715: 1957(M), 1958(P). WSP 1929: Drainage erea.

GAGE.--Water-atage recorder. Datum of gage is 2,408.18 ft above aea level. Prior to Dec. 22, 1955, water-atage recorder at aite 0.7 mi upstream at different detum. Jan. 13 to June 18, 1956, nonrecording gage at former aite at datum 4.17 ft lower than former datum.

REMARKS.--Records good. Flow regulated by Ruth Reservoir (station 11480400), 9 mi upstream, beginning in July 1961. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discherge, 39,200 ft^3/s, Dec. 22, 1955, gage height, 24.5 ft, present datum, from floodmarks, from reting curve extended above 10,000 ft^3/s on basis of slope-area measurement of peak flow; minimum deily, 0.60 ft^3/s, Sept. 15, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,300 ft^3/s, Jan. 20, gage height, 14.34 ft; minimum daily, 11 ft^3/s, Nov. 25, 26, 30, and Dec. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	25	11	893	626	641	559	387	1730	71	42	42
2	83	19	12	1230	564	655	589	357	1400	70	42	42
3	79	16	14	1060	501	882	565	371	1110	68	42	42
4	78	24	13	847	491	1030	710	400	947	68	42	43
5	77	22	12	637	711	1020	834	409	938	67	42	55
6	76	22	32	544	768	987	803	387	907	58	41	50
7	77	22	73	1110	757	965	717	358	813	55	41	49
8	85	46	364	1370	752	902	675	332	707	50	41	49
9	86	49	413	1150	775	820	682	314	617	49	41	49
10	86	51	596	906	823	792	720	204	541	48	41	49
11	86	51	239	699	1050	735	725	125	466	48	41	49
12	86	51	132	554	1110	665	669	197	408	47	41	49
13	86	58	96	598	e1000	604	604	328	371	44	41	49
14	84	59	74	1680	e840	578	544	332	338	44	41	49
15	83	60	66	2120	e704	633	501	284	312	44	41	49
16	75	60	55	2090	606	760	460	260	277	44	41	49
17	70	61	61	1820	552	2710	719	229	265	44	41	51
18	70	61	129	1450	734	3620	1190	113	255	44	41	58
19	70	60	287	1370	1240	2630	1170	204	249	44	42	58
20	68	38	302	10700	1720	1800	1010	250	215	44	43	58
21	67	14	268	10100	1440	1320	864	230	168	44	43	57
22	60	20	61	7430	1190	1060	729	172	157	43	42	56
23	61	14	49	3690	1190	1090	686	170	129	43	42	57
24	81	12	45	2140	1170	1450	732	173	123	43	42	57
25	81	11	43	1460	1030	1400	692	165	116	43	42	58
26	81	11	40	1160	866	1170	636	245	106	42	42	58
27	79	12	38	1050	746	980	578	366	103	43	42	58
28	73	12	224	932	679	817	524	432	94	43	42	58
29	66	12	249	849	---	685	469	422	75	43	42	58
30	68	11	87	766	---	586	424	683	71	42	42	56
31	53	---	230	696	---	523	---	1530	---	42	42	---
TOTAL	2363	984	4315	63101	24635	34510	20780	10429	14008	1522	1291	1562
MEAN	76.2	32.8	139	2036	880	1113	693	336	467	49.1	41.6	52.1
MAX	88	61	596	10700	1720	3620	1190	1530	1730	71	43	58
MIN	53	11	11	544	491	523	424	113	71	42	41	42
AC-FT	4690	1950	8560	125200	48860	68450	41220	20690	27780	3020	2560	3100

e Estimated.

11480500 MAD RIVER NEAR FOREST GLEN, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1960, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	34.4	155	563	1008	1296	709	443	208	58.7	11.1	4.19	4.74
MAX	168	455	2168	1885	3217	1073	1157	447	118	17.0	8.14	13.5
(WY)	1958	1958	1956	1954	1958	1957	1958	1957	1960	1960	1958	1958
MIN	2.18	2.33	7.35	155	285	253	175	54.0	20.6	4.92	2.12	1.64
(WY)	1956	1960	1960	1960	1955	1955	1959	1959	1959	1959	1959	1955

SUMMARY STATISTICS	WATER YEARS 1954 - 1960	
ANNUAL MEAN	370	
HIGHEST ANNUAL MEAN	701	1958
LOWEST ANNUAL MEAN	165	1955
HIGHEST DAILY MEAN	14500	Dec 22 1955
LOWEST DAILY MEAN	1.3	Sep 15 1960
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 5 1955
INSTANTANEOUS PEAK FLOW	39200	Dec 22 1955
INSTANTANEOUS PEAK STAGE	24.50	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	268100	
10 PERCENT EXCEEDS	960	
50 PERCENT EXCEEDS	64	
90 PERCENT EXCEEDS	2.2	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	115	243	618	968	822	780	447	153	82.6	69.5	87.7	96.2
MAX	620	1262	2672	3077	3447	2083	1808	450	467	89.2	114	220
(WY)	1963	1974	1965	1970	1986	1975	1963	1983	1993	1992	1974	1963
MIN	37.0	32.8	26.5	16.8	28.6	25.9	11.8	11.9	15.9	39.4	41.6	52.1
(WY)	1978	1993	1987	1991	1977	1977	1977	1977	1977	1963	1993	1993

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1963 - 1993	
ANNUAL TOTAL	50215		179500			
ANNUAL MEAN	137		492		372	
HIGHEST ANNUAL MEAN					762	1983
LOWEST ANNUAL MEAN					47.2	1977
HIGHEST DAILY MEAN	1520	Feb 22	10700	Jan 20	18200	Dec 22 1964
LOWEST DAILY MEAN	11	Nov 25	11	Nov 25	8.1	Jun 12 1968
ANNUAL SEVEN-DAY MINIMUM	11	Nov 25	11	Nov 25	8.7	Jun 8 1968
INSTANTANEOUS PEAK FLOW			15300	Jan 20	20100	Dec 22 1964
INSTANTANEOUS PEAK STAGE			14.34	Jan 20	16.80	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	99600		356000		269400	
10 PERCENT EXCEEDS	305		1110		870	
50 PERCENT EXCEEDS	92		129		100	
90 PERCENT EXCEEDS	24		41		45	

11481000 MAD RIVER NEAR ARCATA, CA

LOCATION.--Lat 40°54'35", long 124°03'35", in NW 1/4 NW 1/4 sec.15, T.6 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, on right bank 100 ft upstream from bridge on U.S. Highway 299, 1.0 mi downstream from Warren Creek, and 2.8 mi northeast of Arcata.

DRAINAGE AREA.--485 mi^2.

PERIOD OF RECORD.--October 1910 to September 1913, August 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 2129: 1965(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 10.79 ft above sea level. December 1910 to September 1913, nonrecording gage at site 0.1 mi upstream at different datum. Aug. 15, 1950, to July 23, 1956, water-stage recorder at site 0.6 mi upstream at datum 11.00 ft higher. July 24, 1956, to Aug. 10, 1992, water-stage recorder at different datums, at present site.

REMARKS.--Records fair. Flow regulated by Ruth Reservoir (station 11480400), 68 mi upstream, beginning in July 1961. Water is diverted 0.5 mi upstream from station for municipal supply and industrial use in Humboldt Bay area.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,000 ft^3/s, Dec. 22, 1964, gage height, 30.7 ft, prior datum, from high-water profile and flood-routing study; minimum daily, 0.10 ft^3/s, Aug. 29, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,500 ft^3/s, Jan. 20, gage height, 16.90 ft; minimum daily, 4.5 ft^3/s, Nov. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	156	141	5510	1590	1990	2920	1250	5580	262	60	39
2	31	341	191	3530	1400	2580	3650	1110	5410	251	58	38
3	27	237	423	2480	1310	3160	3730	1740	4000	246	57	38
4	15	101	378	2300	1260	3100	6380	3390	3520	236	55	37
5	7.3	57	294	1910	1720	2850	5350	2320	4340	224	53	38
6	7.7	35	303	1550	1930	2720	3730	1870	3590	211	52	40
7	4.7	20	880	2420	1880	2710	2910	1590	3210	183	51	45
8	7.1	e5.0	2350	2780	1910	2590	2650	1430	2660	162	50	43
9	11	e4.5	8130	2800	2190	2400	2810	1250	2210	149	48	41
10	16	13	8790	2370	2330	2380	3190	1120	1930	133	47	41
11	19	17	7050	1860	4160	2380	3040	977	1660	123	46	41
12	19	33	5000	1480	4310	2130	2480	993	1440	115	45	41
13	21	27	3040	1350	3170	2020	2150	1140	1280	108	44	40
14	20	23	2090	3720	2480	2040	1860	1130	1100	107	43	40
15	20	25	1510	3770	2030	3550	1750	1020	1060	104	42	38
16	15	31	1270	4800	1660	3750	1550	922	976	100	42	38
17	12	50	1410	3700	1430	7770	2890	844	889	97	41	39
18	8.9	51	1380	2790	2080	11100	5150	765	814	93	39	40
19	4.7	110	951	2310	4530	8180	4080	654	753	90	39	40
20	12	303	946	14400	7010	5560	3100	818	732	86	40	43
21	42	242	1010	16100	6070	4080	2590	822	689	82	41	43
22	e30	1580	938	18100	5050	3250	2350	776	621	82	41	44
23	25	818	706	10600	5460	5720	2730	675	586	88	40	43
24	17	461	719	6290	4510	5450	3630	632	524	86	40	41
25	19	318	671	4290	3470	4230	2860	695	e430	80	40	43
26	34	235	598	3400	2760	3470	2790	1090	e390	76	39	43
27	35	188	537	2950	2340	2830	2280	2310	e350	73	36	42
28	35	258	2370	2580	2100	2380	1940	1780	e320	71	35	43
29	e29	262	2420	2240	---	2010	1650	1450	e290	68	34	44
30	26	190	1620	2030	---	1700	1440	1950	e270	66	33	43
31	71	---	4050	1800	---	1560	---	5140	---	64	39	---
TOTAL	661.4	6191.5	62166	138210	82140	111640	89630	43653	51624	3916	1370	1229
MEAN	21.3	206	2005	4458	2934	3601	2988	1408	1721	126	44.2	41.0
MAX	71	1580	8790	18100	7010	11100	6380	5140	5580	262	60	45
MIN	4.7	4.5	141	1350	1260	1560	1440	632	270	64	33	37
AC-FT	1310	12280	123300	274100	162900	221400	177800	86590	102400	7770	2720	2440
a	4423	4289	4645	4069	3912	4496	3260	2161	2874	3471	3781	2401

e Estimated.
a Diversion, in acre-feet, for municipal supply and industrial use; provided by Humboldt Bay Municipal Water District.

11481000 MAD RIVER NEAR ARCATA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1960, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	313	1081	2997	4588	4164	2438	1716	1167	358	97.2	40.3	39.3
MAX	2303	2903	9335	9175	9830	5054	3450	2669	1311	210	68.2	128
(WY)	1951	1954	1956	1953	1958	1957	1958	1953	1953	1953	1953	1912
MIN	22.0	32.0	136	852	1232	1028	489	277	104	36.6	19.2	18.2
(WY)	1953	1960	1960	1960	1955	1955	1951	1954	1959	1959	1959	1951

SUMMARY STATISTICS	WATER YEARS 1911 - 1960	
ANNUAL MEAN	1573	
HIGHEST ANNUAL MEAN	2377	1958
LOWEST ANNUAL MEAN	943	1955
HIGHEST DAILY MEAN	63100	Dec 22 1955
LOWEST DAILY MEAN	17	Sep 8 1951
ANNUAL SEVEN-DAY MINIMUM	17	Sep 4 1959
INSTANTANEOUS PEAK FLOW	77800	Dec 22 1955
INSTANTANEOUS PEAK STAGE	27.30	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	1139000	
10 PERCENT EXCEEDS	4010	
50 PERCENT EXCEEDS	400	
90 PERCENT EXCEEDS	31	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	228	1397	2721	3238	2866	2839	1741	629	229	55.4	44.6	67.4
MAX	2255	6671	10400	8847	9796	7150	6253	1519	1721	152	123	392
(WY)	1963	1974	1965	1970	1986	1975	1963	1967	1993	1964	1983	1986
MIN	21.3	60.1	29.8	135	138	194	165	122	31.2	8.40	7.04	15.0
(WY)	1993	1988	1977	1977	1977	1988	1988	1968	1974	1977	1977	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1963 - 1993	
ANNUAL TOTAL	200510.7		592430.9			
ANNUAL MEAN	548		1623		1332	
HIGHEST ANNUAL MEAN					2478	1974
LOWEST ANNUAL MEAN					151	1977
HIGHEST DAILY MEAN	8790	Dec 10	18100	Jan 22	58000	Dec 22 1964
LOWEST DAILY MEAN	4.5	Nov 9	4.5	Nov 9	.10	Aug 29 1977
ANNUAL SEVEN-DAY MINIMUM	9.8	Oct 4	9.8	Oct 4	.63	Aug 23 1977
INSTANTANEOUS PEAK FLOW			24500	Jan 20	81000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			16.90	Jan 20	30.70	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	397700		1175000		964800	
10 PERCENT EXCEEDS	1550		4060		3650	
50 PERCENT EXCEEDS	102		818		260	
90 PERCENT EXCEEDS	15		33		29	

11481200 LITTLE RIVER NEAR TRINIDAD, CA

LOCATION.--Lat 41°00'40", long 124°04'50", in NE 1/4 sec.8, T.7 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, on right bank 0.5 mi upstream from Coon Creek, 4.7 mi southeest of Trinidad, and 9.1 mi north of Arcata.

DRAINAGE AREA.--40.5 mi^2.

PERIOD OF RECORD.--October 1955 to current year. Prior to October 1971, published as "at Crannell."

REVISED RECORDS.--WSP 2129: 1956-60. WDR CA-78-2: Dreinage erea.

GAGE.--Water-stage recorder and crest-stege gege. Detum of gage is 17.62 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which ere poor. No storege or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,830 ft^3/s, Mar. 18, 1975, gege height, 14.19 ft, from rating curve extended above 3,100 ft^3/s on basis of slope-aree meesurement at gege height 14.08 ft; minimum daily, 1.8 ft^3/s, Sept. 25-29, 1991.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 17, 18, 1953, reached a stage of 15.7 ft, observed by an employee of Hammond Lumber Co.

EXTREMES FOR CURRENT YEAR.--Peak discherges greater then base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 10	1115	*3,100	*7.68				

Minimum daily, 3.7 ft^3/s, Oct. 8-19, Sept. 28-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	248	35	e890	93	140	462	146	600	38	14	7.4
2	6.0	169	97	e680	85	157	414	133	586	37	13	7.1
3	6.1	53	92	e500	81	188	559	389	430	35	13	6.2
4	5.0	30	62	e370	74	168	1230	513	388	35	13	6.2
5	4.4	21	50	e260	70	144	534	297	381	34	13	6.2
6	4.2	17	60	e350	66	129	370	232	306	33	13	6.2
7	4.1	16	232	e440	62	118	285	195	257	30	13	6.2
8	3.7	14	797	e390	59	107	334	180	216	28	13	6.2
9	3.7	12	927	e340	89	99	319	156	188	28	13	6.2
10	3.7	11	1330	e270	101	97	318	142	165	28	12	6.2
11	3.7	10	723	e220	444	98	271	135	147	26	12	6.2
12	3.7	11	505	e180	419	88	226	155	133	26	12	6.2
13	3.7	11	293	e350	264	85	197	147	119	24	12	6.1
14	3.7	11	194	e625	184	99	178	131	108	24	11	5.6
15	3.7	12	140	e420	146	524	183	119	101	24	10	5.6
16	3.7	12	109	e520	123	365	161	110	92	23	10	5.6
17	3.7	16	194	e330	112	682	409	103	85	23	9.4	5.6
18	3.7	17	168	e265	154	e1650	476	98	75	22	9.4	5.6
19	3.7	72	126	e400	612	626	343	97	72	22	11	5.6
20	4.1	60	126	e570	649	399	253	105	69	21	18	5.6
21	13	119	193	e870	601	303	215	98	66	21	13	5.4
22	14	373	153	e1200	532	260	235	96	61	23	11	5.1
23	12	104	122	580	512	1230	435	88	57	26	10	5.0
24	10	65	101	388	403	572	453	87	53	22	9.8	4.6
25	8.4	48	88	279	285	378	357	93	50	20	9.2	4.6
26	8.0	39	78	221	221	289	364	136	49	19	8.7	4.6
27	8.0	49	76	182	182	236	276	216	45	18	8.2	3.8
28	8.0	56	541	154	155	201	222	172	44	17	7.4	3.7
29	14	45	695	132	---	179	189	142	42	17	7.4	3.7
30	23	39	673	117	---	157	166	573	40	16	7.4	3.7
31	40	---	1050	104	---	186	---	1090	---	15	7.4	---
TOTAL	241.1	1760	10030	12597	6778	9954	10434	6374	5025	775	344.3	166.0
MEAN	7.78	58.7	324	406	242	321	348	206	167	25.0	11.1	5.53
MAX	40	373	1330	1200	649	1650	1230	1090	600	38	18	7.4
MIN	3.7	10	35	104	59	85	161	87	40	15	7.4	3.7
AC-FT	478	3490	19890	24990	13440	19740	20700	12640	9970	1540	683	329

e Estimated.

11481200 LITTLE RIVER NEAR TRINIDAD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29.8	170	307	324	286	264	139	74.4	33.1	12.9	8.22	8.01
MAX	202	849	1083	1145	816	819	521	271	167	31.4	23.3	28.4
(WY)	1963	1974	1965	1970	1986	1975	1963	1960	1993	1983	1983	1986
MIN	4.70	5.53	7.45	28.2	19.7	35.5	22.1	21.9	12.2	6.12	3.59	3.89
(WY)	1988	1960	1977	1977	1977	1988	1977	1987	1966	1959	1959	1987

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1956 - 1993	
ANNUAL TOTAL	25647.7		64478.4			
ANNUAL MEAN	70.1		177		137	
HIGHEST ANNUAL MEAN					240	1974
LOWEST ANNUAL MEAN					23.8	1977
HIGHEST DAILY MEAN	1330	Dec 10	1650	Mar 18	7860	Mar 18 1975
LOWEST DAILY MEAN	3.3	Sep 18	3.7	Oct 8	1.8	Sep 25 1991
ANNUAL SEVEN-DAY MINIMUM	3.4	Sep 17	3.7	Oct 8	1.9	Sep 24 1991
INSTANTANEOUS PEAK FLOW			3100	Dec 10	9830	Mar 18 1975
INSTANTANEOUS PEAK STAGE			7.68	Dec 10	14.19	Mar 18 1975
ANNUAL RUNOFF (AC-FT)	50870		127900		99550	
10 PERCENT EXCEEDS	161		502		359	
50 PERCENT EXCEEDS	24		92		34	
90 PERCENT EXCEEDS	4.2		6.1		5.9	

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA

LOCATION.--Lat 40°54'22", long 123°48'51", in SE 1/4 NE 1/4 sec.15, T.6 N., R.3 E., Humboldt County, Hydrologic Unit 18010102, on right bank 400 ft upstream from Lupton Creek and 9.1 mi east of town of Blue Lake.

DRAINAGE AREA.--67.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1953 to September 1958, October 1972 to September 1993 (discontinued).

REVISED RECORDS.--WDR CA-78-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 850 ft above sea level, from topographic map.

REMARKS.--Records fair except for daily discharges below 1 ft^3/s, which are poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft^3/s, Mar. 18, 1975, gage height, 13.70 ft, from rating curve extended above 6,400 ft^3/s; minimum daily, 0.69 ft^3/s, Sept. 30, 1993.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 10	1015	2,910	6.81	Jan. 20	1330	*5,340	*9.15

Minimum daily, 0.69 ft^3/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	81	33	649	e320	e320	419	317	531	84	23	5.9
2	4.4	70	60	420	e300	e410	492	306	628	78	21	5.3
3	4.0	37	56	336	e290	e390	518	561	458	78	21	5.3
4	3.4	26	46	335	e285	e350	920	688	457	73	19	5.0
5	3.1	21	44	300	280	e330	709	489	481	70	20	4.5
6	3.0	18	61	317	293	e300	569	432	431	65	19	4.5
7	2.7	17	94	489	292	e280	510	403	441	61	19	4.4
8	2.0	17	861	419	314	e260	531	383	383	59	19	4.2
9	2.1	15	1190	377	372	e250	527	349	335	57	e19	4.0
10	2.1	14	1330	331	354	e230	607	328	306	57	e18	3.7
11	2.0	14	749	287	484	e220	555	341	283	53	e18	3.8
12	1.7	14	506	265	497	e210	454	390	263	51	e17	3.7
13	1.7	13	339	292	385	e200	402	354	237	45	e17	3.4
14	1.7	12	278	585	330	e210	372	331	217	43	e16	3.5
15	1.9	12	253	471	297	e450	358	312	197	41	e16	3.1
16	2.0	12	226	595	e260	e440	349	290	189	41	e16	2.9
17	2.1	14	306	439	e220	e1200	650	268	177	39	e16	2.8
18	2.1	15	250	363	e320	1010	820	253	166	37	e17	2.4
19	2.3	54	218	369	e520	798	647	258	149	35	19	2.2
20	2.7	52	243	3080	e700	607	535	260	143	35	e29	2.1
21	6.9	69	266	1800	e620	493	496	237	139	34	e20	1.9
22	7.1	235	245	e2700	e780	418	472	231	134	34	e15	1.6
23	5.0	84	216	e2000	e700	745	597	209	128	39	e10	1.5
24	4.2	57	199	e1200	e520	569	575	207	119	36	e9.0	1.4
25	3.5	47	189	e800	e450	428	488	230	107	33	e8.2	1.2
26	3.4	38	176	e580	e370	363	471	347	104	29	e7.2	1.1
27	3.5	41	181	e500	e340	332	429	372	102	27	6.4	.95
28	3.5	49	471	e450	e300	310	392	289	98	27	6.0	.90
29	6.9	42	399	e390	---	282	368	258	94	27	5.8	.74
30	22	36	319	e360	---	244	343	290	90	27	5.6	.69
31	27	---	820	e340	---	255	---	472	---	23	5.7	---
TOTAL	142.2	1226	10624	21839	11193	12904	15575	10455	7587	1438	477.9	88.68
MEAN	4.59	40.9	343	704	400	416	519	337	253	46.4	15.4	2.96
MAX	27	235	1330	3080	780	1200	920	688	628	84	29	5.9
MIN	1.7	12	33	265	220	200	343	207	90	23	5.6	.69
AC-FT	282	2430	21070	43320	22200	25600	30890	20740	15050	2850	948	176

e Estimated.

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	40.3	260	453	490	538	476	300	151	68.5	21.6	9.99	9.39
MAX	226	1179	1563	1628	1479	1306	748	337	253	46.4	27.4	29.2
(WY)	1974	1974	1956	1956	1958	1975	1982	1993	1993	1993	1983	1986
MIN	2.30	15.2	12.3	31.3	42.2	81.5	62.6	53.0	22.3	10.5	3.14	2.19
(WY)	1988	1977	1977	1977	1977	1988	1988	1992	1987	1985	1992	1987

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1954 - 1993	
ANNUAL TOTAL	34550.1		93549.78			
ANNUAL MEAN	94.4		256		233	
HIGHEST ANNUAL MEAN					423	1956
LOWEST ANNUAL MEAN					44.2	1977
HIGHEST DAILY MEAN	1330	Dec 10	3080	Jan 20	8360	Mar 18 1975
LOWEST DAILY MEAN	1.7	Oct 12	.69	Sep 30	.69	Sep 30 1993
ANNUAL SEVEN-DAY MINIMUM	1.9	Oct 10	1.0	Sep 24	1.0	Sep 24 1993
INSTANTANEOUS PEAK FLOW			5340	Jan 20	12200	Mar 18 1975
INSTANTANEOUS PEAK STAGE			9.15	Jan 20	13.70	Mar 18 1975
ANNUAL RUNOFF (AC-FT)	68530		185600		169100	
10 PERCENT EXCEEDS	251		564		588	
50 PERCENT EXCEEDS	42		210		73	
90 PERCENT EXCEEDS	2.6		3.5		6.6	

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
CHEMICAL DATA: Water yaars 1974-75.
WATER TEMPERATURE: Water years 1973 to current year.
SEDIMENT DATA: Water years 1973 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1972 to September 1981, October 1981 to September 1992 (storm season only).
SUSPENDED-SEDIMENT DISCHARGE: October 1972 to September 1981, October 1981 to September 1992 (storm season only).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 33.5°C, Aug. 2, 1977; minimum recorded, 0.5°C, Jan. 9, 1977.
SEDIMENT CONCENTRATION: Maximum daily mean, 11,200 mg/L, Mar. 18, 1975; minimum daily mean, 0 mg/L, at times in saveral years.
SEDIMENT LOAD: Maximum daily, 276,000 tons, Mar. 18, 1975; minimum daily, 0 tons, at times in several yeers.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC								
03...	1515	50	6.5	3	0.41	--	--	--
09...	1320	891	8.0	380	914	--	--	--
09...	1530	761	8.0	313	643	--	--	--
JAN								
21...	1515	1790	8.0	1240	5990	17	18	26

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
DEC							
03...	--	--	--	--	--	--	--
09...	--	--	76	84	89	95	100
09...	--	--	73	81	87	94	100
JAN							
21...	36	47	59	75	88	97	100

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAM-PLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORI-ZONTAL WIDTH OF VER-TICAL (FEET)
JAN									
21...	1545	1000	1100	0.250	0	1530	1600	10	4.6

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VER-TICALS IN COM-POSITE SAMPLE (NUM)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
JAN									
21...	1	15	15	2.30	1810	8.0	1.60	110	1

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
JAN								
21...	14	29	36	39	42	45	54	100

11482500 REDWOOD CREEK AT ORICK, CA

LOCATION.--Lat 41°17'58", long 124°03'00", in NE 1/4 NE 1/4 sec.34, T.11 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, on right bank on U.S. Highway 101, 0.8 mi north of Orick, 300 ft downstream from Prairie Creek, and 3.7 mi upstream from mouth.
DRAINAGE AREA.--277 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1911 to September 1913, October 1953 to current yeer. Monthly diacharge only for aome periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1315-B: 1912-13.

GAGE.--Water-atage recorder and crest-stage gege. Datum of gage is 5.16 ft above sea level. Sept. 10, 1911, to Aug. 9, 1913, nonrecording gege at different datum. October 1953 to Apr. 16, 1987, at aite 0.9 mi downstream at aame datum. May 7, 1987, to Aug. 3, 1987, nonrecording gage at same site and datum.

REMARKS.--Recorda good except for eatimated daily dischargea, which are poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,500 ft^3/s, Dec. 22, 1964, gage height, 24.0 ft, former site, from outside high-water marks; minimum daily, 2.1 ft^3/s, Oct. 20-22, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 18, 1953, reached a stage of 23.95 ft, former site, from floodmarks, discharge, 50,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak dischargee greater than base discherge of 9,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 22	0845	*11,800	*19.22				

Minimum daily, 3.9 ft^3/s, Oct. 10-19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	1010	164	4470	1140	1550	2240	1340	3390	338	116	48
2	6.3	823	273	3210	1060	1990	2600	1230	3090	327	110	47
3	5.3	317	367	2300	1000	2140	2930	2070	2320	316	107	46
4	4.6	183	280	2220	959	1950	5000	3250	2140	300	103	44
5	4.4	135	223	2030	941	1730	3980	2290	2320	273	98	41
6	4.4	110	238	1830	930	1590	2980	1940	2040	252	98	43
7	4.1	97	562	2670	899	1470	2460	1730	1960	232	98	43
8	4.1	82	2030	2620	894	1370	2480	1610	1750	224	98	43
9	4.1	71	5060	2770	1010	1270	2570	1450	1570	218	92	42
10	3.9	62	4380	2440	1020	1240	2950	1330	1420	207	85	41
11	3.9	56	3420	1990	2250	1210	2760	1290	1320	193	85	39
12	3.9	50	2480	1650	2780	1100	2350	1450	1250	184	81	39
13	3.9	48	1490	1500	1970	1050	2040	1300	1130	174	81	38
14	3.9	45	1050	2880	1590	1100	1800	1200	1030	174	79	34
15	3.9	44	847	2700	1400	2370	1750	1110	950	171	80	33
16	3.9	43	726	3470	1280	2270	1580	1050	880	174	80	33
17	3.9	e60	890	2790	1180	4130	2510	992	814	171	74	32
18	3.9	e60	856	2270	1390	6490	3740	931	752	163	74	32
19	3.9	e270	726	2050	2420	4060	2890	892	704	163	82	34
20	6.1	e190	777	8770	3670	2870	2330	925	682	157	141	32
21	31	195	950	7920	3250	2380	2050	877	645	154	106	30
22	17	1600	860	10100	3500	2120	1970	844	610	163	85	29
23	18	656	749	6030	4070	4660	2360	783	563	181	74	28
24	16	380	671	3960	3390	3660	2790	752	524	168	69	27
25	13	267	595	3040	2620	2720	2330	813	492	157	65	26
26	11	218	526	2350	2180	2280	2230	996	458	146	61	25
27	12	221	512	1900	1860	2000	1950	1370	443	136	58	23
28	12	231	1890	1710	1660	1800	1760	1120	411	133	55	23
29	19	208	2200	1540	---	1610	1590	969	383	129	53	23
30	211	182	2130	1380	---	1440	1470	1780	347	124	51	23
31	220	---	4230	1240	---	1370	---	3170	---	120	51	---
TOTAL	666.9	7914	42152	97800	52313	68990	74440	42854	36388	6022	2590	1041
MEAN	21.5	264	1360	3155	1868	2225	2481	1382	1213	194	83.5	34.7
MAX	220	1600	5060	10100	4070	6490	5000	3250	3390	338	141	48
MIN	3.9	43	164	1240	894	1050	1470	752	347	120	51	23
AC-FT	1320	15700	83610	194000	103800	136800	147700	85000	72180	11940	5140	2060

e Estimated.

11482500 REDWOOD CREEK AT ORICK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	168	1123	2102	2412	2176	1964	1219	627	259	86.5	42.7	40.6
MAX	1559	5219	8981	6041	6320	5565	4026	1732	1213	194	91.6	149
(WY)	1963	1974	1965	1956	1986	1975	1963	1912	1993	1993	1968	1986
MIN	2.91	35.3	42.1	180	190	297	251	188	77.3	35.7	9.89	4.44
(WY)	1988	1960	1977	1977	1977	1988	1988	1987	1987	1987	1992	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1911 - 1993	
ANNUAL TOTAL	151791.8		433170.9			
ANNUAL MEAN	415		1187		1014	
HIGHEST ANNUAL MEAN					1726	1974
LOWEST ANNUAL MEAN					192	1977
HIGHEST DAILY MEAN	5060	Dec 9	10100	Jan 22	43200	Dec 22 1964
LOWEST DAILY MEAN	3.7	Sep 23	3.9	Oct 10	2.1	Oct 20 1987
ANNUAL SEVEN-DAY MINIMUM	3.9	Oct 10	3.9	Oct 10	2.2	Oct 17 1987
INSTANTANEOUS PEAK FLOW			11800	Jan 22	50500	Dec 22 1964
INSTANTANEOUS PEAK STAGE			19.22	Jan 22	24.00	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	301100		859200		734300	
10 PERCENT EXCEEDS	1050		2820		2720	
50 PERCENT EXCEEDS	175		823		303	
90 PERCENT EXCEEDS	4.5		29		26	

11482500 REDWOOD CREEK AT ORICK, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955-56, 1959 to September 1980, October 1981 to current year (storm season only).
CHEMICAL DATA: Water years 1959-66, 1973-81.
WATER TEMPERATURE: Water years 1966 to current year.
SEDIMENT DATA: Water years 1955-56, 1970 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1965 to September 1981, October 1981 to September 1992 (storm season only).
SUSPENDED-SEDIMENT DISCHARGE: March 1970 to September 1981, October 1981 to September 1992 (storm season only).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATION: Maximum daily mean, 9,610 mg/L, Mar. 18, 1975; minimum daily mean, 0 mg/L, Nov. 10-12, 1986, Apr. 20, 29, 30, 1987, several days during 1989-90, msny days during 1991.
SEDIMENT LOAD: Maximum daily, 1,070,000 tons, Msr. 18, 1975; minimum daily, 0 tons, Nov. 10-12, 1986, Apr. 20, 29, 30, 1987, several days during 1989-90, many days during 1991.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC								
09...	1145	5080	9.5	736	10100	27	32	45
09...	1345	4660	9.5	656	8250	--	--	--
JAN								
20...	1255	10000	9.5	2680	72400	21	26	32
21...	1120	6830	9.0	845	15600	24	30	35

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
DEC							
09...	59	73	82	88	95	99	100
09...	--	--	84	--	--	--	--
JAN							
20...	49	64	73	84	94	99	100
21...	50	65	76	83	90	98	100

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
DEC									
09...	1230	1000	1100	0.250	0	1210	1250	10	6.0
09...	1310	1000	1100	0.250	0	1255	1320	10	6.0
JAN									
21...	1005	1000	1100	0.250	0	0950	1020	10	10.0
21...	1040	1000	1100	0.250	0	1025	1055	10	10.0

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
DEC									
09...	2	23	23	18.0	4860	9.5	24.7	2640	1
09...	2	23	23	18.0	4700	9.5	13.6	2640	1
JAN									
21...	2	21	21	7.00	7000	9.0	16.5	2940	1
21...	2	21	21	7.00	6920	9.0	11.5	2940	2

11482500 REDWOOD CREEK AT ORICK, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993--Continued

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
DEC								
09...	3	6	18	44	74	91	99	100
09...	4	6	16	33	57	81	97	100
JAN								
21...	10	24	35	49	65	82	95	100
21...	9	18	27	38	49	62	90	100

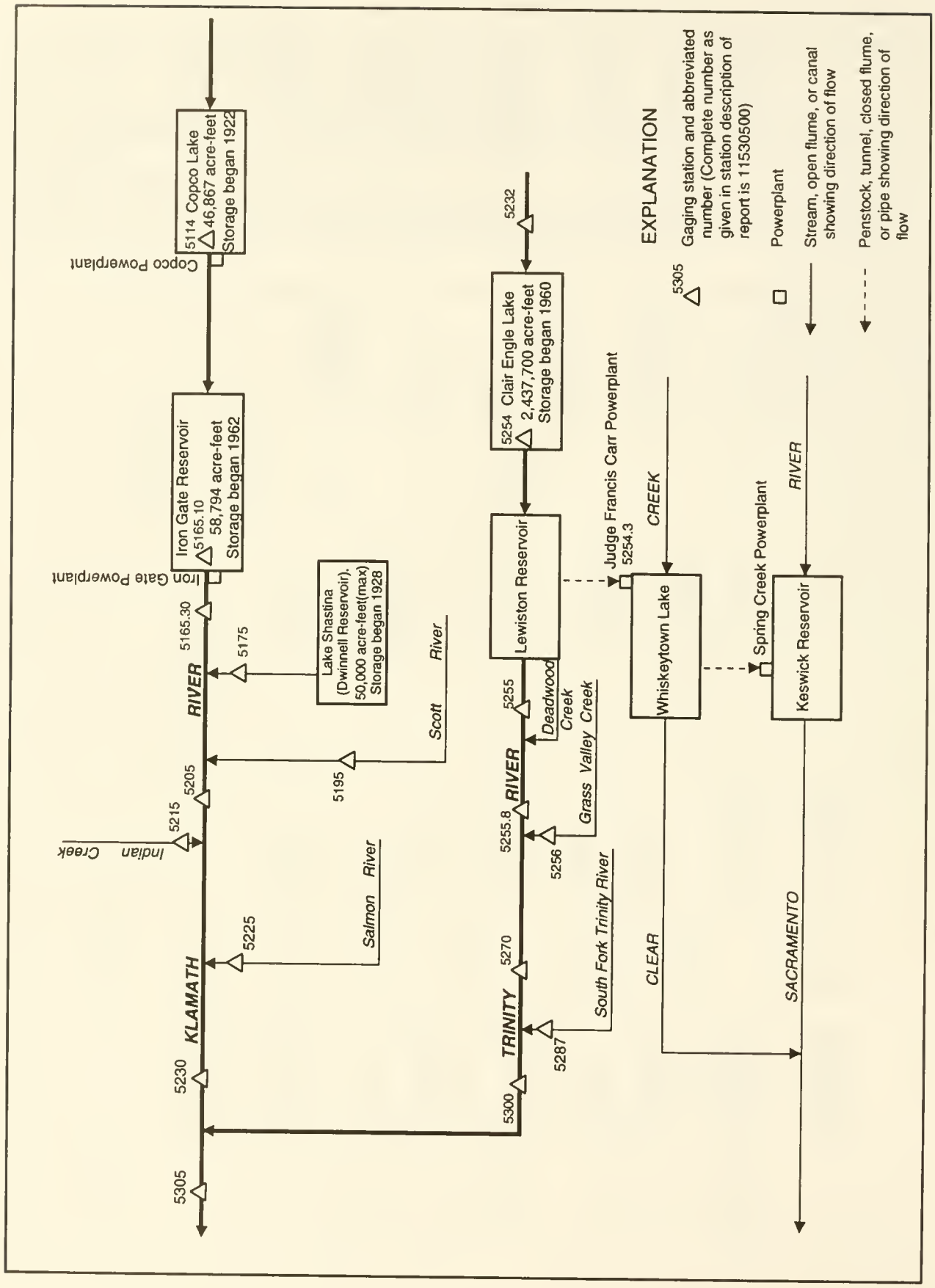

Figure 26. Diversions and storage in Klamath River and Trinity River basins.

RESERVOIRS IN KLAMATH RIVER BASIN, CA

11511400 COPCO LAKE NEAR COPCO.--Lat 41°58'46", long 122°20'00", in SE 1/4 SW 1/4 sec.29, T.48 N., R.4 W., Siskiyou County, Hydrologic Unit 18010206, 12.7 mi northeast of Hornbrook. DRAINAGE AREA, 4,300 mi^2, approximately (not including Lost River, Butte Creek, or Lower Klamath Lake basins). PERIOD OF RECORD, October 1967 to current year (monthend contents only). GAGE, pressure device and telemark read once daily. Datum of gage is sea level (levels by PacifiCorp, formerly Pacific Power and Light Co.). Monthend contents computed from capacity table provided by Pacific Power and Light Co., dated Aug. 25, 1964.

REMARKS.--Lake is formed by gravity-type dam completed in 1922. Useable capacity, 17,107 acre-ft between elevations 2,607.5 ft, top of tainter gates, and 2,588.5 ft, invert to powerplant intake. Dead storage 29,760 acre-ft below elevation 2,588.5 ft. Figures given represent total contents at 0800 hours. Lake is used for power generation. See schematic diagram of Klamath River and Trinity River basins.

COOPERATION.--Records were provided by PacifiCorp, formerly Pacific Power & Light Co., in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES (at 0800) FOR PERIOD OF RECORD.--Maximum contents, 46,818 acre-ft, June 24, 1969, elevation, 2,607.45 ft; minimum since first filling, 30,360 acre-ft, Aug. 19, 1971, elevation, 2,589.24 ft.

EXTREMES (at 0800) FOR CURRENT YEAR.--Maximum contents, 46,323 acre-ft, Aug. 28, elevation, 2,606.95 ft; minimum, 40,494 acre-ft, Apr. 2, elevation, 2,600.85 ft.

11516510 IRON GATE RESERVOIR NEAR HORNBROOK.--Lat 41°55'58", long 122°26'06", in SW 1/4 SW 1/4 sec.9, T.47 N., R.5 W., Siskiyou County, Hydrologic Unit 18010206, 6.6 mi northeast of Hornbrook. DRAINAGE AREA, 4,573 mi^2, approximately (not including Lost River, Butte Creek, or Lower Klamath Lake basins). PERIOD OF RECORD, October 1967 to current year (monthend contents only). GAGE, pressure device and telemark read once daily. Datum of gage is sea level (levels by PacifiCorp, formerly Pacific Power and Light Co.). Monthend contents computed from capacity table provided by Pacific Power and Light Co., dated Feb. 15, 1960.

REMARKS.--Reservoir is formed by earth and rockfill dam completed in 1962. Usable capacity, 58,387 acre-ft, between elevations 2,328.0 ft, crest of spillway, and 2,184.75 ft, invert to diversion tunnel. Dead storage 407 acre-ft. Normal operating pool is from elevations 2,305.0 ft, capacity, 39,963 acre-ft, to 2,328.0 ft, capacity, 58,794 acre-ft. Figures given represent total contents at 0800 hours. Reservoir is used for power generation and recreation. See schematic diagram of Klamath River and Trinity River basins.

COOPERATION.--Records were provided by PacifiCorp, formerly Pacific Power and Light Co., in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES (at 0800) FOR PERIOD OF RECORD.--Maximum contents, 61,776 acre-ft, Mar. 3, 1972, elevation, 2,330.96 ft; minimum since first filling, 50,103 acre-ft, Dec. 9, 1968, elevation, 2,318.40 ft.

EXTREMES (at 0800) FOR CURRENT YEAR.--Maximum contents, 60,917 acre-ft, Mar. 24, elevation, 2,330.12 ft; minimum, 53,960 acre-ft, Dec. 28, elevation, 2,322.85 ft.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	11511400 COPCO LAKE			11516510 IRON GATE RESERVOIR		
Sept. 30	2,602.46	41,999	--	2,325.60	56,491	--
Oct. 31	2,603.55	43,030	+1,031	2,323.77	54,795	-1,696
Nov. 30	2,602.83	42,347	-683	2,324.64	55,595	+800
Dec. 31	2,603.02	42,526	+179	2,323.93	54,940	-655
CAL YR 1992	--	--	+3,267	--	--	-147
Jan. 31	2,605.70	45,099	+2,573	2,324.84	55,780	+840
Feb. 29	2,604.40	43,842	-1,257	2,322.93	54,031	-1,749
Mar. 31	2,600.98	40,614	-3,228	2,329.86	60,653	+6,622
Apr. 30	2,604.00	43,458	+2,844	2,328.60	59,388	-1,265
May 31	2,606.60	45,979	+2,521	2,326.04	56,905	-2,483
June 30	2,604.90	44,323	-1,656	2,326.11	56,972	+67
July 31	2,606.50	45,881	+1,558	2,325.75	56,632	-340
Aug. 31	2,606.35	45,734	-147	2,325.48	56,379	-253
Sept. 30	2,604.15	43,602	-2,132	2,324.48	55,448	-931
WTR YR 1993	--	--	+1,603	--	--	-1,043

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA

LOCATION.--Lat 41°55'41", long 122°26'35", in SE 1/4 NE 1/4 sec.17, T.47 N., R.5 W., Siskiyou County, Hydrologic Unit 18010206, on left bank 0.1 mi downstream from Bogus Creek, 0.6 mi downstream from Iron Gate Dam, and 5.8 mi northeast of Hornbrook.

DRAINAGE AREA.--4,630 mi^2, approximately (not including Lost River, Butte Creek, or Lower Klamath Lake basins).

PERIOD OF RECORD.--October 1960 to current year.
CHEMICAL DATA: Water years 1962-81.
WATER TEMPERATURE: Water years 1963-80.

GAGE.--Water-stage recorder. Datum of gage is 2,162.44 ft above sea level (levels by PacifiCorp, formerly Pacific Power & Light Co.).

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Upper Klamath Lake, capacity, 523,700 acre-ft; Iron Gate Reservoir (station 11516510), other smaller reservoirs, and diversions upstream from station. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft^3/s, Dec. 22, 1964, gage height, 13.63 ft, from rating curve extended above 15,000 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 389 ft^3/s, Aug. 25-28, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,100 ft^3/s, Mar. 24, gage height, 9.58 ft; minimum daily, 672 ft^3/s, July 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	867	911	913	915	900	910	8430	4210	2170	743	985	1350
2	870	911	913	911	900	917	6990	4000	3780	743	971	1350
3	869	912	910	909	900	928	6280	4180	5160	744	964	1350
4	867	915	909	908	900	922	7250	4350	7090	742	1000	1340
5	865	914	916	906	903	922	7450	4310	7710	743	1040	1340
6	887	914	910	906	907	922	6980	4410	7270	741	1040	1340
7	909	914	911	909	906	1220	6700	4410	6900	708	1040	1340
8	907	914	939	910	908	1730	6690	4300	4770	678	1040	1340
9	911	915	932	909	915	1880	6300	4160	3260	677	1040	1340
10	911	914	955	910	917	2760	6050	4110	1870	676	1040	1340
11	909	916	927	909	918	2960	6200	3840	1750	677	1050	1340
12	909	916	919	909	915	3000	6130	3470	1740	676	1050	1410
13	909	917	914	910	911	3270	5980	3250	1730	675	1050	1440
14	910	916	914	913	910	3450	5880	2930	1690	677	1050	1400
15	910	916	913	896	907	3510	5980	2590	1350	678	1060	1340
16	912	916	912	900	904	3740	6030	2580	1080	684	1060	1340
17	912	917	911	898	904	5030	6080	2620	1080	691	1060	1350
18	916	917	911	896	907	7140	6270	1800	1070	694	1060	1340
19	914	940	910	897	909	7570	5570	1720	1070	680	1060	1340
20	915	908	909	1450	908	8280	4300	1730	1070	676	1050	1360
21	920	924	908	1960	908	7540	3780	1730	1060	675	1050	1350
22	915	918	909	1920	909	7890	2480	1560	1060	676	1050	1360
23	913	916	909	1600	925	8940	2340	1120	1060	676	1040	1370
24	911	913	908	896	927	10800	2900	1120	894	674	1040	1370
25	910	913	908	893	918	10100	2730	1120	767	674	1040	1370
26	907	913	907	900	914	10100	2800	1120	779	674	1040	1370
27	911	915	905	909	911	7990	2630	1120	779	673	1040	1370
28	915	912	907	905	910	7980	2470	1120	759	673	1040	1370
29	915	911	907	901	---	7810	2720	1110	736	672	1040	1370
30	914	911	907	900	---	7840	3340	1250	742	674	1040	1370
31	911	---	913	900	---	8640	---	1640	---	708	1080	---
TOTAL	28021	27459	28336	31355	25471	156691	155730	82980	72246	21452	32210	40760
MEAN	904	915	914	1011	910	5055	5191	2677	2408	692	1039	1359
MAX	920	940	955	1960	927	10800	8430	4410	7710	744	1080	1440
MIN	865	908	905	893	900	910	2340	1110	736	672	964	1340
AC-FT	55580	54460	56200	62190	50520	310800	308900	164600	143300	42550	63890	80850

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1705	2226	2872	2894	2989	3623	3023	2012	1045	756	975	1313
MAX	3353	5254	6735	9489	9150	10780	6922	4973	2591	1429	1208	2052
(WY)	1985	1985	1984	1965	1965	1972	1971	1971	1983	1982	1965	1965
MIN	852	873	889	888	525	511	740	512	506	428	398	538
(WY)	1982	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1961 - 1993	
ANNUAL TOTAL	237451		702711			
ANNUAL MEAN	649		1925		2115	
HIGHEST ANNUAL MEAN					3657	1965
LOWEST ANNUAL MEAN					641	1992
HIGHEST DAILY MEAN	955	Dec 10	10800	Mar 24	25000	Dec 22 1964
LOWEST DAILY MEAN	389	Aug 25	672	Jul 29	389	Aug 25 1992
ANNUAL SEVEN-DAY MINIMUM	390	Aug 24	673	Jul 24	390	Aug 24 1992
INSTANTANEOUS PEAK FLOW			11100	Mar 24	29400	Dec 22 1964
INSTANTANEOUS PEAK STAGE			9.58	Mar 24	13.63	Dec 22 1964
INSTANTANEOUS LOW FLOW			672	Jul 29	389	Aug 25 1992
ANNUAL RUNOFF (AC-FT)	471000		1394000		1532000	
10 PERCENT EXCEEDS	913		5690		4030	
50 PERCENT EXCEEDS	528		924		1490	
90 PERCENT EXCEEDS	409		779		731	

11517500 SHASTA RIVER NEAR YREKA, CA

LOCATION.--Lat 41°49'23", long 122°35'40", in SE 1/4 NE 1/4 sec.24, T.46 N., R.7 W., Siskiyou County, Hydrologic Unit 18010207, on right bank 24 mi downstream from Lake Shastina, 0.5 mi upstream from mouth, and 7 mi north of Yreka.

DRAINAGE AREA.--793 mi^2.

PERIOD OF RECORD.--October 1933 to December 1941, December 1944 to current year.
CHEMICAL DATA: Water years 1959-79.
WATER TEMPERATURE: Water years 1965-79.
SEDIMENT DATA: Water years 1955-56, 1958-62.

REVISED RECORDS.--WSP 1929: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 2,000 ft above sea level, from topographic map. Prior to Nov. 2, 1933, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good, except those for summer months, which are fair. Low flow completely regulated by Lake Shastina (formerly Lake Dwinnell) beginning in 1928; storage limited to 50,000 acre-ft. Small powerplant, 5.6 miles upstream, has operated intermittently since summer of 1987. Many diversions upstream from station for irrigation. See schematic diagram of Klameth River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,500 ft^3/s, Dec. 22, 1964, gage height, 12.92 ft, in gage well, 13.85 ft, from floodmarks, from rating curve extended above 4,100 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 1.5 ft^3/s, Aug. 24, 1981, July 17, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 630 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1630	*1,610	*6.62	Mar. 25	0500	735	5.24

Minimum daily, 20 ft^3/s, Aug. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	145	139	164	179	182	253	82	425	59	24	52
2	67	143	141	163	175	180	235	70	381	60	20	48
3	59	139	139	157	183	179	236	76	298	56	25	53
4	66	137	138	155	188	179	282	102	271	67	41	44
5	86	137	137	152	177	178	283	92	466	61	26	42
6	83	137	136	154	178	174	228	92	421	55	25	46
7	86	137	141	161	179	166	221	102	352	51	26	44
8	103	139	159	162	181	177	199	78	300	75	27	38
9	103	139	193	160	195	183	195	68	256	63	26	45
10	100	137	252	158	212	194	180	60	232	42	33	43
11	99	137	236	157	211	211	175	58	186	36	37	48
12	100	137	186	152	205	191	163	55	150	32	34	39
13	101	137	169	151	196	187	161	61	120	23	33	38
14	101	139	161	166	188	228	145	55	121	24	28	38
15	97	141	156	185	183	230	117	55	106	31	44	44
16	97	140	154	186	178	254	132	53	84	34	69	45
17	98	140	157	183	176	411	171	65	77	38	77	47
18	96	140	163	179	179	455	280	140	75	28	57	54
19	102	142	157	176	186	368	248	114	92	28	60	55
20	107	142	153	844	213	295	221	72	44	26	91	57
21	112	142	155	768	265	262	205	59	45	30	60	56
22	126	144	153	1080	225	249	189	51	66	29	56	78
23	120	143	150	488	223	281	169	60	56	33	58	74
24	123	140	143	322	224	580	191	50	45	36	52	62
25	119	139	144	273	212	637	181	51	57	37	48	66
26	119	139	146	257	203	452	182	51	55	37	50	74
27	121	140	150	217	190	366	162	60	49	36	62	77
28	133	139	157	207	184	316	116	56	49	34	62	80
29	135	139	161	198	---	284	101	48	51	31	62	80
30	145	138	156	187	---	267	93	57	54	28	56	87
31	144	---	161	182	---	261	---	243	---	26	54	---
TOTAL	3200	4188	4943	8144	5488	8577	5714	2336	4984	1246	1423	1654
MEAN	103	140	159	263	196	277	190	75.4	166	40.2	45.9	55.1
MAX	145	145	252	1080	265	637	283	243	466	75	91	87
MIN	52	137	136	151	175	166	93	48	44	23	20	38
AC-FT	6350	8310	9800	16150	10890	17010	11330	4630	9890	2470	2820	3280

11517500 SHASTA RIVER NEAR YREKA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	152	197	281	325	336	308	201	130	97.0	41.3	38.3	75.5
MAX	351	361	1223	1179	1002	946	753	363	296	136	111	182
(WY)	1963	1985	1965	1974	1958	1983	1974	1941	1958	1982	1941	1978
MIN	90.7	117	120	110	133	97.7	31.8	24.5	17.9	10.1	8.35	26.7
(WY)	1989	1937	1937	1937	1934	1977	1992	1992	1955	1960	1939	1981

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1934 - 1993	
ANNUAL TOTAL	30565.5		51897			
ANNUAL MEAN	83.5		142		181	
HIGHEST ANNUAL MEAN					364	1974
LOWEST ANNUAL MEAN					77.9	1934
HIGHEST DAILY MEAN	252	Dec 10	1080	Jan 22	10400	Dec 23 1964
LOWEST DAILY MEAN	6.6	Aug 19	20	Aug 2	1.5	Aug 24 1981
ANNUAL SEVEN-DAY MINIMUM	7.7	Aug 14	27	Jul 31	5.5	Aug 9 1939
INSTANTANEOUS PEAK FLOW			1610	Jan 20	21500	Dec 22 1964
INSTANTANEOUS PEAK STAGE			6.62	Jan 20	12.82	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	60630		102900		131400	
10 PERCENT EXCEEDS	158		252		339	
50 PERCENT EXCEEDS	56		137		152	
90 PERCENT EXCEEDS	16		38		25	

11519500 SCOTT RIVER NEAR FORT JONES, CA

LOCATION.--Lat 41°38'27", long 123°00'50", in NE 1/4 NE 1/4 sec.29, T.44 N., R.10 W., Siskiyou County, Hydrologic Unit 18010208, on right bank 1.8 mi upstream from Snow Creek and 9.0 mi west of Fort Jones.

DRAINAGE AREA.--653 mi^2.

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only October to December 1941, published in WSP 1315-B.
CHEMICAL DATA: Water years 1959-79.
SEDIMENT DATA: Water years 1955-56.

REVISED RECORDS.--WSP 1445: 1942-43(M), 1946(M), 1948. WSP 1715: 1951-52(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,623.80 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1966, water-stage recorder 400 ft downstream at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 30,000 acres upstream from station. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,600 ft^3/s, Dec. 22, 1964, gage height, 25.34 ft, from floodmarks, from rating curve extended above 15,000 ft^3/s on basis of slope-area measurement at 21.40 ft, site and datum then in use; minimum daily, 5.0 ft^3/s, several days during August 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 21	0115	3,440	10.29	May 31	2315	6,370	12.77
Mar. 17	2130	*7,430	*13.44				

Minimum daily, 17 ft^3/s, Oct. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	37	70	181	445	516	1450	1340	4600	451	111	41
2	51	287	71	178	424	513	1370	1470	2920	428	108	42
3	53	245	68	159	423	564	1380	2010	2240	408	99	44
4	51	140	68	157	435	635	1760	2240	2020	389	94	45
5	52	106	68	157	478	643	1630	1780	2200	369	84	44
6	51	89	68	156	691	666	1400	1720	1950	341	70	43
7	53	77	69	162	693	748	1270	1720	1690	318	66	43
8	56	69	84	160	752	891	1290	1500	1550	284	63	41
9	58	64	168	158	894	1080	1470	1370	1450	263	61	42
10	60	62	289	156	839	1380	1330	1560	1470	248	57	47
11	63	59	632	149	857	1600	1210	2140	1410	235	54	48
12	67	52	421	142	808	1490	1110	2060	1270	225	50	47
13	71	49	300	145	717	1440	1030	1650	1150	205	44	47
14	75	51	238	156	660	1760	984	1350	1140	194	41	47
15	74	50	209	180	615	2250	983	1290	1190	192	40	47
16	76	45	189	197	571	2690	1010	1480	1120	182	40	47
17	79	42	183	192	544	5580	1160	1800	1080	169	41	48
18	80	42	169	189	531	6200	1570	1950	1110	162	41	49
19	75	42	155	191	607	4070	1380	2010	1160	157	42	50
20	80	40	148	1070	913	2910	1270	2690	1170	146	46	52
21	86	41	142	2540	802	2370	1270	2490	1100	136	51	52
22	88	75	136	2420	721	2050	1260	1930	926	136	53	52
23	88	107	129	1480	705	2840	1200	1690	793	140	51	52
24	88	94	125	1030	682	3300	1160	1720	706	143	50	53
25	88	81	121	828	625	2520	1090	1790	660	142	48	53
26	90	74	118	712	587	1990	1090	1960	646	132	45	53
27	75	71	122	638	553	1680	1040	2400	634	126	44	50
28	44	72	137	579	531	1490	1000	2360	580	114	43	49
29	17	74	146	530	---	1380	1090	1880	526	113	43	49
30	20	72	141	499	---	1330	1300	2140	482	115	45	50
31	19	---	154	470	---	1290	---	4580	---	114	42	---
TOTAL	1978	2409	5138	15961	18103	59866	37557	60070	40943	6777	1767	1427
MEAN	63.8	80.3	166	515	647	1931	1252	1938	1365	219	57.0	47.6
MAX	90	287	632	2540	913	6200	1760	4580	4600	451	111	53
MIN	17	37	68	142	423	513	983	1290	482	113	40	41
AC-FT	3920	4780	10190	31660	35910	118700	74490	119100	81210	13440	3500	2830

11519500 SCOTT RIVER NEAR FORT JONES, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	116	341	818	1022	1131	1010	1017	1139	711	184	66.1	56.9
MAX	941	1628	5003	4417	4793	2825	2217	2426	1801	769	269	228
(WY)	1963	1974	1965	1974	1958	1972	1952	1958	1975	1983	1983	1983
MIN	17.6	38.1	62.2	80.9	99.0	83.3	55.1	121	78.0	23.5	7.38	7.99
(WY)	1978	1988	1960	1977	1977	1977	1977	1977	1992	1981	1981	1981

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1942 - 1993	
ANNUAL TOTAL	77371.4		251996			
ANNUAL MEAN	211		690		632	
HIGHEST ANNUAL MEAN					1496	1974
LOWEST ANNUAL MEAN					74.9	1977
HIGHEST DAILY MEAN	2150	Apr 17	6200	Mar 18	39500	Dec 23 1964
LOWEST DAILY MEAN	6.4	Aug 20	17	Oct 29	5.0	Aug 18 1981
ANNUAL SEVEN-DAY MINIMUM	6.7	Aug 17	41	Aug 13	5.1	Aug 17 1981
INSTANTANEOUS PEAK FLOW			7430	Mar 17	54600	Dec 22 1964
INSTANTANEOUS PEAK STAGE			13.44	Mar 17	25.34	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	153500		499800		457700	
10 PERCENT EXCEEDS	545		1790		1510	
50 PERCENT EXCEEDS	96		205		310	
90 PERCENT EXCEEDS	12		47		48	

11520500 KLAMATH RIVER NEAR SEIAD VALLEY, CA

LOCATION.--Lat 41°51'14", long 123°13'52", in SW 1/4 SW 1/4 sec.3, T.46 N., R.12 W., Siskiyou County, Hydrologic Unit 18010206, Klamath National Forest, on left bank 0.4 mi upstream from Bittenbender Creek, 1.4 mi downstream from Grider Creek, 2.2 mi west of Seiad Valley, and 55 mi downstream from Iron Gate Dam.

DRAINAGE AREA.--6,940 mi^2, approximately (not including Lost River, Butte Creek, or Lower Klamath Lake basins).

PERIOD OF RECORD.--October 1912 to September 1925, July 1951 to current year. Monthly discharges only for some periods, published in WSP 1315-B.
CHEMICAL DATA: Water years 1959-66.
WATER TEMPERATURE: Water years 1964-79.
SEDIMENT DATA: Water years 1955-56.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,320 ft above sea level, from river-profile map. November 1912 to June 1925, nonrecording gage at site 3.5 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Low flow regulated considerably by reservoirs and powerplants upstream from station. Large diversions upstream from station for irrigation. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 165,000 ft^3/s, Dec. 23, 1964, gage height, 33.75 ft, from floodmarks, from rating curve extended above 49,000 ft^3/s on basis of slope-area measurements at gage heights 20.1 and 29.2 ft; minimum daily, 320 ft^3/s, Nov. 25, 1917.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 18	1430	*20,900	*12.52	June 5	1530	13,600	10.13

Minimum daily, 1,000 ft^3/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1000	1520	1300	1650	2110	2280	11900	7250	10300	1990	1230	1450
2	1050	1660	1330	1620	2090	2280	11000	7550	9000	1940	1420	1620
3	1030	1540	1330	1560	2090	2490	9930	8510	9570	1920	1390	1630
4	1020	1370	1300	1530	2160	2660	11100	9120	10800	1880	1390	1630
5	1030	1310	1300	1510	2330	2710	11700	8440	12900	1840	1430	1620
6	1030	1270	1310	1500	2700	2870	10900	8310	12200	1790	1420	1610
7	1050	1250	1330	1550	2770	3140	10100	8380	11500	1720	1410	1620
8	1070	1250	1420	1560	2800	4110	10200	7990	9880	1640	1410	1610
9	1090	1230	1680	1550	3070	4600	10400	7540	7720	1580	1390	1600
10	1090	1220	2120	1540	3050	5470	9860	7780	6010	1520	1380	1610
11	1090	1210	2390	1510	3030	6450	9640	8550	5160	1470	1390	1610
12	1080	1220	2020	1480	2910	6110	9400	8170	4800	1430	1410	1600
13	1080	1210	1760	1480	2700	6290	9110	7160	4550	1400	1400	1590
14	1070	1210	1640	1550	2560	7040	8800	6570	4450	1360	1380	1590
15	1070	1220	1580	1590	2450	8440	8820	5860	4420	1360	1420	1620
16	1080	1220	1540	1620	2350	9400	8880	6040	3760	1350	1470	1600
17	1080	1220	1550	1620	2280	16700	9200	6540	3590	1340	1460	1640
18	1080	1210	1520	1600	2260	20400	10800	6590	3590	1320	1440	1620
19	1080	1240	1490	1670	2310	17300	10000	6140	3660	1310	1430	1620
20	1080	1250	1470	5060	2660	16000	8670	6960	3600	1270	1500	1630
21	1110	1250	1470	8020	2680	14100	7750	6810	3460	1250	1450	1630
22	1120	1510	1450	8560	2550	13100	6720	6000	3180	1260	1420	1630
23	1120	1390	1440	5540	2580	15600	5480	5190	2950	1300	1400	1670
24	1110	1350	1440	3810	2690	18300	5900	4940	2780	1270	1380	1660
25	1100	1330	1420	2940	2540	17200	5960	4880	2440	1250	1370	1660
26	1090	1310	1410	2680	2430	15900	5790	5080	2370	1230	1370	1660
27	1090	1320	1430	2490	2360	13600	5660	5270	2340	1210	1370	1660
28	1090	1330	1530	2320	2310	12100	5270	5440	2250	1190	1370	1660
29	1130	1310	1540	2220	---	11700	5460	4900	2130	1160	1360	1670
30	1280	1300	1520	2180	---	11200	6170	5120	2040	1160	1350	1660
31	1310	---	1580	2140	---	11900	---	8250	---	1140	1330	---
TOTAL	33800	39230	47610	77650	70820	301440	260570	211330	167400	44850	43340	48680
MEAN	1090	1308	1536	2505	2529	9724	8686	6817	5580	1447	1398	1623
MAX	1310	1660	2390	8560	3070	20400	11900	9120	12900	1990	1500	1670
MIN	1000	1210	1300	1480	2090	2280	5270	4880	2040	1140	1230	1450
AC-FT	67040	77810	94430	154000	140500	597900	516800	419200	332000	88960	85960	96560

11520500 KLAMATH RIVER NEAR SEIAD VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2185	3165	4691	5615	6072	6425	5970	5086	3230	1687	1452	1698
MAX	4490	7654	20280	21500	17980	19120	13940	10700	7980	3908	2778	3000
(WY)	1963	1985	1965	1965	1958	1972	1974	1956	1953	1913	1913	1925
MIN	1047	1222	1455	1408	1466	1145	1132	1285	819	598	436	604
(WY)	1992	1992	1992	1992	1992	1977	1977	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1913 - 1993	
ANNUAL TOTAL	427611		1346720			
ANNUAL MEAN	1168		3690		3928	
HIGHEST ANNUAL MEAN					7434	1956
LOWEST ANNUAL MEAN					1151	1992
HIGHEST DAILY MEAN	4070	Apr 17	20400	Mar 18	115000	Dec 23 1964
LOWEST DAILY MEAN	398	Aug 20	1000	Oct 1	320	Nov 25 1917
ANNUAL SEVEN-DAY MINIMUM	417	Aug 18	1030	Oct 1	417	Aug 18 1992
INSTANTANEOUS PEAK FLOW			20900	Mar 18	165000	Dec 23 1964
INSTANTANEOUS PEAK STAGE			12.52	Mar 18	33.75	Dec 23 1964
INSTANTANEOUS LOW FLOW			1000	Oct 1	320	Nov 25 1917
ANNUAL RUNOFF (AC-FT)	848200		2671000		2846000	
10 PERCENT EXCEEDS	1680		9400		7940	
50 PERCENT EXCEEDS	1220		1660		2780	
90 PERCENT EXCEEDS	482		1210		1220	

11521500 INDIAN CREEK NEAR HAPPY CAMP, CA

LOCATION.--Lat 41°50'07", long 123°22'55", in SW 1/4 SW 1/4 sec.26, T.17 N., R.7 E., Siskiyou County, Hydrologic Unit 18010209, on right bank 0.2 mi upstream from Sister Creek, 3.0 mi north of Happy Camp, and 3.5 mi upstream from mouth.

DRAINAGE AREA.--120 mi^2.

PERIOD OF RECORD.--September 1911 to September 1921 (fragmentary), December 1956 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1635: 1957-58.

GAGE.--Water-stage recorder. Datum of gage is 1,198.37 ft above sea level. Prior to December 1956, nonrecording gages at sites 1.0 mi upstream at different datums. December 1956 to Sept. 20, 1969, water-stage recorder at site 0.8 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Small diversions upstream and at station for irrigation. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft^3/s, Dec. 22, 1964, gage height, 24.3 ft, from floodmarks, present site and datum; 36.59 ft from floodmerks in gege well, from rating curve extended above 6,000 ft^3/s on basis of slope-area measurement at gage height 29.0 ft, previous site and datum; minimum discharge observed, 20 ft^3/s, Aug. 19 to Sept. 6, 1914.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 21, 1955, reached a stege of 29.0 ft, at 1956-69 site and datum, from floodmarks, discharge, 23,000 ft^3/s on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 17	1730	*4,860	*10.07				

Minimum daily, 29 ft^3/s, Oct. 11-19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	750	107	263	303	330	918	967	1320	231	105	66
2	44	476	147	228	292	334	902	1090	1050	225	102	65
3	35	193	143	205	304	422	1250	1600	896	218	99	64
4	33	129	126	198	346	511	1690	1340	896	209	97	64
5	32	106	115	195	510	545	1390	1090	897	202	94	63
6	30	91	115	186	665	660	1130	1090	811	193	92	63
7	30	86	131	195	659	830	1010	1040	751	186	91	62
8	30	81	220	205	672	976	1190	931	695	181	89	61
9	30	75	483	204	723	1100	1370	890	661	176	88	60
10	30	70	1330	191	719	1260	1480	1100	639	170	86	59
11	29	67	706	179	759	1320	1290	1140	596	165	85	59
12	29	65	422	170	674	1220	1080	1010	539	161	85	57
13	29	63	313	168	589	1190	958	868	512	157	84	57
14	29	62	264	179	521	1370	877	800	518	155	82	57
15	29	61	239	185	468	2050	910	843	504	154	89	57
16	29	60	216	202	421	2300	881	926	469	149	87	57
17	29	60	219	202	387	4170	1170	1020	453	145	83	58
18	29	59	195	194	379	3350	1380	1090	452	142	81	58
19	29	75	180	268	544	2270	1220	1200	436	139	89	58
20	32	76	178	1820	688	1820	1090	1130	404	136	114	57
21	51	146	180	1330	574	1590	1110	997	375	134	92	56
22	46	440	178	1130	505	1430	1060	889	340	149	84	56
23	38	204	171	781	492	2550	995	867	316	149	80	55
24	35	150	165	581	453	1850	989	883	297	134	79	55
25	34	124	161	472	412	1430	965	836	291	127	77	54
26	32	111	157	405	379	1200	950	823	288	123	75	54
27	32	136	181	364	353	1060	867	770	276	119	72	53
28	33	147	301	334	337	957	847	761	258	116	71	53
29	63	126	274	317	---	907	945	737	246	115	69	53
30	193	112	246	314	---	861	1030	1440	236	112	68	53
31	185	---	277	311	---	854	---	1630	---	108	67	---
TOTAL	1362	4401	8140	11976	14128	42717	32944	31798	16422	4880	2656	1744
MEAN	43.9	147	263	386	505	1378	1098	1026	547	157	85.7	58.1
MAX	193	750	1330	1820	759	4170	1690	1630	1320	231	114	66
MIN	29	59	107	168	292	330	847	737	236	108	67	53
AC-FT	2700	8730	16150	23750	28020	84730	65340	63070	32570	9680	5270	3460

11521500 INDIAN CREEK NEAR HAPPY CAMP, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	83.4	332	602	687	805	762	659	550	261	100	60.1	52.3
MAX	414	1498	3156	2230	2820	1896	1372	1368	579	204	100	102
(WY)	1963	1974	1965	1970	1958	1972	1966	1969	1975	1983	1983	1978
MIN	29.8	45.6	45.7	50.5	87.1	170	201	152	71.8	36.5	26.3	27.8
(WY)	1992	1960	1977	1977	1977	1977	1977	1992	1992	1977	1977	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1893 WATER YEAR		WATER YEARS 1957 - 1993	
ANNUAL TOTAL	70610		173168			
ANNUAL MEAN	193		474		411	
HIGHEST ANNUAL MEAN					817	1974
LOWEST ANNUAL MEAN					83.7	1977
HIGHEST DAILY MEAN	1930	Feb 21	4170	Mar 17	30700	Dec 22 1964
LOWEST DAILY MEAN	24	Aug 28	29	Oct 11	21	Sep 12 1977
ANNUAL SEVEN-DAY MINIMUM	25	Aug 25	29	Oct 11	22	Sep 8 1977
INSTANTANEOUS PEAK FLOW			4860	Mar 17	39000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			10.07	Mar 17	24.30	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	140100		343500		297900	
10 PERCENT EXCEEDS	444		1150		943	
50 PERCENT EXCEEDS	118		219		205	
90 PERCENT EXCEEDS	28		56		47	

11522500 SALMON RIVER AT SOMES BAR, CA

LOCATION.--Lat 41°22'40", long 123°28'35", in NE 1/4 sec.3, T.11 N., R.6 E., Siskiyou County, Hydrologic Unit 18010210, Klamath National Forest, on left bank at Somes Bar, 1.0 mi upstream from mouth.

DRAINAGE AREA.--751 mi^2.

PERIOD OF RECORD.--September 1911 to September 1915, October 1927 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1285: 1912, 1914, 1915(M), 1946(M), 1948(M). WDR CA-72-1: 1970-71(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 482.97 ft above sea level. Prior to October 1927, nonrecording gage at different datum, October 1927 to Dec. 22, 1964, water-stage recorder at site 0.5 mi upstream at datum 6.54 ft higher.

REMARKS.--Records fair, except for Oct. 1 to July 29, which are poor. No storage or large diversion upstream from station. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 133,000 ft^3/s, Dec. 22, 1964 (result of failure of upstream debris dam), gage height, 46.6 ft, present site and datum, from floodmarks, from rating curve extended above 33,000 ft^3/s; minimum daily, 70 ft^3/s, Aug. 25, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1815	17,100	11.97	May 31	0630	13,000	10.25
Mar. 17	Unknown	*20,800	*13.44				

Minimum daily, 104 ft^3/s, Oct. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	2800	392	1650	1610	1610	e4300	4040	8800	1580	536	285
2	182	2890	445	1300	1530	1700	e4500	4460	7140	1560	527	278
3	175	1260	445	1040	1520	2260	e4600	6160	5830	1450	521	275
4	140	706	398	949	1620	2510	e4700	5680	5610	1360	517	270
5	129	564	376	855	2110	2480	e5500	4790	5740	1290	488	265
6	122	480	377	800	2470	e2650	e5300	4850	5250	1230	467	267
7	117	423	413	1010	2350	e2800	e4900	4680	4910	1180	447	263
8	113	390	1020	1130	2480	e3300	e4500	4170	4630	1130	433	259
9	113	349	2690	1110	2740	e3700	e4700	3990	4430	1100	423	253
10	112	319	3290	1020	2570	e4400	e5000	4920	4420	1070	417	249
11	111	296	2990	923	2630	e5100	e4900	5690	4140	1010	407	244
12	109	280	1800	849	2360	e4500	e4750	5200	3650	959	428	242
13	107	267	1250	830	2090	e4000	e4600	4380	3470	903	407	237
14	107	258	1020	1030	1890	e4500	e4500	3890	3600	867	392	234
15	108	248	904	1070	1730	e6000	e4250	4010	3640	852	417	234
16	106	241	821	1170	1600	e7000	e4200	4770	3370	813	449	232
17	104	240	889	1150	1510	e13000	e4500	5470	3270	784	412	251
18	108	237	790	1110	1550	e9500	e5100	5670	3450	752	388	248
19	107	287	725	1140	1910	e7200	4910	5860	3570	740	386	243
20	112	304	738	9880	2480	e6000	4590	7000	3500	729	423	238
21	196	364	762	8610	2340	e5200	4530	5990	3200	700	393	232
22	246	1670	755	7500	2150	e4500	4330	5150	2580	734	373	229
23	188	857	727	5020	2270	e6200	4170	5000	2280	910	359	225
24	159	590	706	3580	2270	e5600	4110	5230	2090	845	347	220
25	146	489	694	2830	2090	e5100	3980	5220	2090	708	334	218
26	140	439	681	2420	1900	e4700	4000	5220	2230	656	328	217
27	137	500	722	2190	1740	e4400	e3800	5570	2170	623	316	213
28	139	557	966	2050	1640	e4200	e3700	5030	1860	609	308	209
29	196	473	1000	1910	---	e4000	e3600	4590	1700	605	302	208
30	560	421	946	1800	---	e3800	e3700	6500	1610	574	299	204
31	844	---	1340	1710	---	e3650	---	11000	---	548	293	---
TOTAL	5340	19199	31072	69636	57150	145560	134220	164180	114230	28871	12537	7242
MEAN	172	640	1002	2246	2041	4695	4474	5296	3808	931	404	241
MAX	844	2890	3290	9880	2740	13000	5500	11000	8800	1580	536	285
MIN	104	237	376	800	1510	1610	3600	3890	1610	548	293	204
AC-FT	10590	38080	61630	138100	113400	288700	266200	325700	226600	57270	24870	14360

e Estimated.

11522500 SALMON RIVER AT SOMES BAR, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	356	1133	2157	2822	2907	2883	2996	3124	1911	609	260	202
MAX	2297	5961	10480	11260	11190	9615	5741	6174	4354	1906	839	528
(WY)	1963	1974	1965	1970	1958	1972	1938	1938	1953	1953	1983	1983
MIN	117	130	175	190	255	448	710	786	402	146	81.6	83.1
(WY)	1988	1937	1937	1937	1977	1977	1977	1977	1992	1931	1931	1931

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1912 - 1993	
ANNUAL TOTAL	275513		789237			
ANNUAL MEAN	753		2162		1774	
HIGHEST ANNUAL MEAN					3754	1974
LOWEST ANNUAL MEAN					339	1977
HIGHEST DAILY MEAN	6890	Apr 17	13000	Mar 17	100000	Dec 22 1964
LOWEST DAILY MEAN	93	Sep 23	104	Oct 17	70	Aug 25 1931
ANNUAL SEVEN-DAY MINIMUM	96	Sep 18	107	Oct 13	73	Aug 24 1931
INSTANTANEOUS PEAK FLOW			20800	Mar 17	133000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			13.44	Mar 17	46.60	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	546500		1565000		1285000	
10 PERCENT EXCEEDS	1710		5120		4160	
50 PERCENT EXCEEDS	449		1150		1020	
90 PERCENT EXCEEDS	107		227		178	

11523000 KLAMATH RIVER AT ORLEANS, CA

LOCATION.--Lat 41°18'13", long 123°32'00", in SW 1/4 NE 1/4 sec.31, T.11 N., R.6 E., Humboldt County, Hydrologic Unit 18010209, Six Rivers National Forest, on right bank at Orleans, 25 ft upstream from highway bridge, and 0.2 mi downstream from Cheenitch Creek.

DRAINAGE AREA.--8,475 mi^2, not including Lost River or Lower Klamath Lake basins.

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1965, published as "at Somesbar."
SEDIMENT DATA: Water years 1967-79.

REVISED RECORDS.--WSP 1565: 1935(M), 1949.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 353.98 ft above sea level. Prior to Oct. 1, 1965, at site 6.7 mi upstream at different datum. Oct. 1, 1965, to July 14, 1992, water-stage recorder at datum 2.00 ft higher, at present site.

REMARKS.--No estimated daily discharges. Records fair, except for Oct. 1 to July 29, which are poor. Flow considerably regulated by reservoirs and powerplants upstream from station. Large diversions upstream from station for irrigation. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 307,000 ft^3/s, Dec. 22, 1964, gage height, 76.5 ft, from floodmarks, site and datum then in use, from rating curve extended above 80,000 ft^3/s by slope-conveyance study; minimum daily, 320 ft^3/s, Aug. 25, Sept. 1, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 17	2330	*65,300	*20.68				

Minimum daily, 1,110 ft^3/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	7970	2150	6370	6720	6870	21700	17000	28500	4500	2410	2190
2	1270	8270	2350	5530	6480	7080	21400	18300	24600	4400	2470	2250
3	1250	4620	2450	4740	6390	8340	22000	21500	22100	4270	2520	2280
4	1170	3060	2260	4410	6720	9670	26300	22000	22000	4160	2480	2280
5	1150	2530	2140	4180	8030	9990	25600	19700	24000	4010	2470	2280
6	1150	2270	2140	4000	9840	10600	23300	19100	23500	3830	2460	2280
7	1150	2080	2350	4390	9940	12400	21500	19000	21800	3720	2430	2270
8	1150	1990	3560	4720	9950	14100	21800	18100	20500	3600	2410	2270
9	1170	1890	8950	4790	10900	15600	23300	17200	18200	3490	2400	2260
10	1190	1810	12300	4440	10700	17300	23600	18300	16400	3400	2390	2250
11	1190	1740	11500	4130	11400	19000	22300	19800	14300	3300	2370	2250
12	1180	1700	7770	3840	10800	18200	20900	19100	13000	3200	2400	2240
13	1180	1670	5780	3720	9710	18000	19800	17200	12100	3110	2380	2230
14	1180	1640	4810	4250	8770	19400	19000	15600	11800	3020	2360	2230
15	1170	1600	4240	4430	8080	25600	18900	15300	11700	2990	2370	2230
16	1170	1600	3840	4800	7510	28300	18700	16200	10800	2960	2460	2230
17	1160	1610	4070	4820	7060	51100	20100	17700	9960	2900	2410	2270
18	1160	1580	3710	4640	6970	55700	23800	18600	9940	2860	2390	2270
19	1160	1720	3440	4670	7920	40900	22800	18600	9940	2820	2360	2270
20	1180	1880	3430	24100	10500	32600	21000	20100	9650	2790	2500	2260
21	1360	1850	3580	27800	10000	28800	19800	19300	8980	2750	2450	2250
22	1450	6260	3570	26100	9250	25700	19000	17600	7830	2750	2380	2250
23	1340	3910	3420	20300	9270	33400	17400	16400	7090	2920	2330	2250
24	1280	2850	3300	14800	9250	33800	17200	16300	6530	2860	2310	2260
25	1260	2490	3190	11200	8630	30600	17000	15900	6180	2730	2270	2250
26	1240	2300	3100	9570	7950	27300	16700	16200	5930	2670	2250	2250
27	1230	2420	3240	8610	7400	25200	15900	16500	5770	2620	2260	2250
28	1240	2620	5040	7980	7030	22400	15200	16400	5370	2570	2240	2250
29	1410	2420	5280	7500	---	21500	15200	15400	5000	2530	2230	2250
30	2850	2250	4940	7220	---	20800	16700	19100	4680	2480	2220	2250
31	3830	---	5710	6980	---	20700	---	27400	---	2450	2200	---
TOTAL	41980	82600	137610	259030	243170	710950	607900	564900	398150	98660	73580	67600
MEAN	1354	2753	4439	8356	8685	22930	20260	18220	13270	3183	2374	2253
MAX	3830	8270	12300	27800	11400	55700	26300	27400	28500	4500	2520	2280
MIN	1110	1580	2140	3720	6390	6870	15200	15300	4680	2450	2200	2190
AC-FT	83270	163800	272900	513800	482300	1410000	1206000	1120000	789700	195700	145900	134100

11523000 KLAMATH RIVER AT ORLEANS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3089	6170	10630	12980	13640	13590	12630	10900	6433	2790	2071	2239
MAX	9876	22080	48770	48870	53740	42600	26860	25320	16900	7226	3666	3807
(WY)	1963	1974	1965	1970	1986	1972	1974	1938	1953	1953	1953	1953
MIN	1354	1930	2288	2334	2630	2806	3065	3081	1626	755	549	790
(WY)	1993	1988	1937	1937	1977	1977	1977	1992	1992	1931	1931	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1928 - 1993	
ANNUAL TOTAL	1129575		3286130			
ANNUAL MEAN	3086		9003		8067	
HIGHEST ANNUAL MEAN					17030	1974
LOWEST ANNUAL MEAN					2520	1977
HIGHEST DAILY MEAN	19100	Apr 17	55700	Mar 18	240000	Dec 23 1964
LOWEST DAILY MEAN	652	Aug 29	1110	Oct 1	320	Aug 25 1931
ANNUAL SEVEN-DAY MINIMUM	661	Aug 27	1160	Oct 4	453	Aug 1 1931
INSTANTANEOUS PEAK FLOW			65300	Mar 17	307000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			20.68	Mar 17	76.50	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	2241000		6518000		5844000	
10 PERCENT EXCEEDS	6040		21700		17600	
50 PERCENT EXCEEDS	2280		4670		4900	
90 PERCENT EXCEEDS	737		1710		1890	

11523200 TRINITY RIVER ABOVE COFFEE CREEK, NEAR TRINITY CENTER, CA

LOCATION.--Lat 41°06'41", long 122°42'16", in SW 1/4 NW 1/4 sec.32, T.38 N., R.7 W., Trinity County, Hydrologic Unit 18010211, Shasta National Forest, on left bank 24 ft upstream from State Highway No. 3 Bridge, 1.8 mi upstream from Coffee Creek, and 8.6 mi north of Trinity Center.

DRAINAGE AREA.--149 mi^2.

PERIOD OF RECORD.--September 1957 to current year.

REVISED RECORDS.--WDR CA-85-2: 1982(M).

GAGE.--Water-stage recorder and creat-stage gage. Datum of gage is 2,536.93 ft above sea level. Prior to Oct. 1, 1978, water-stage recorder at site 0.2 mi downstream at datum 3.57 ft lower.

REMARKS.--Records good. No estimated daily discharge. No regulation or diversion upstream from station. See schematic diagram of Klameth River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,500 ft^3/s, Jan. 16, 1974, gage height, 12.96 ft, site and datum then in use, from rating curve extended above 4,500 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 13.78 ft, Nov. 16, 1981, present site and datum; minimum daily, 16 ft^3/s, Sept. 11-14, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 10.5 ft, previous site and datum, from floodmarks, discharge, 11,400 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 17	0445	6,100	10.46	May 20	1315	3,460	8.71
Mar. 23	1330	3,660	9.03	May 31	0345	*11,300	*13.06
May 10	2130	3,010	8.37				

Minimum daily, 29 ft^3/s, October 11-19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	209	49	126	169	230	1370	1620	3280	269	83	50
2	45	144	58	98	168	236	1090	1960	2120	259	81	49
3	37	99	57	92	171	427	1170	2320	1600	246	78	49
4	34	73	51	90	179	466	1650	1850	1540	235	76	48
5	33	66	48	91	527	478	1310	1570	1400	220	74	46
6	32	59	60	89	639	669	1080	1780	1200	206	72	46
7	31	55	64	105	510	903	964	1640	1120	194	70	45
8	30	51	70	105	867	1070	1130	1420	1030	184	71	43
9	30	50	77	103	861	1270	1100	1430	990	175	69	43
10	30	47	719	99	703	1750	978	2080	959	169	67	42
11	29	46	335	92	603	1590	869	2440	885	162	67	41
12	29	46	186	91	484	1400	787	1980	783	157	69	41
13	29	46	141	98	398	1550	764	1350	752	152	68	41
14	29	45	124	214	347	1790	783	1140	777	146	71	41
15	29	44	117	177	314	2170	879	1260	756	143	71	42
16	29	43	109	163	286	2810	950	1570	703	139	74	42
17	29	43	109	148	271	5340	1110	1830	691	134	67	48
18	29	43	100	137	321	3850	949	1900	692	131	64	47
19	29	48	91	140	951	2650	870	2380	690	127	63	46
20	34	47	93	223	882	2020	854	3080	669	124	71	44
21	62	46	88	216	559	1720	898	1940	586	120	66	43
22	45	54	84	257	429	1590	926	1480	479	118	61	42
23	38	51	84	193	368	3090	883	1460	414	119	59	42
24	35	46	84	167	317	2850	817	1500	373	113	57	41
25	34	48	86	158	282	1820	819	2060	364	108	56	40
26	33	49	88	155	255	1350	895	2200	367	104	55	39
27	33	59	92	155	237	1200	891	3130	346	101	54	37
28	34	60	112	155	230	1090	1000	2390	316	98	54	37
29	85	52	109	155	---	1060	1390	1900	294	97	53	37
30	125	48	103	160	---	1060	1630	3620	279	92	52	36
31	117	---	102	164	---	1080	---	7190	---	87	51	---
TOTAL	1269	1817	3690	4416	12328	50579	30806	65470	26455	4729	2044	1288
MEAN	40.9	60.6	119	142	440	1632	1027	2112	882	153	65.9	42.9
MAX	125	209	719	257	951	5340	1650	7190	3280	269	83	50
MIN	29	43	48	89	168	230	764	1140	279	87	51	36
AC-FT	2520	3600	7320	8760	24450	100300	61100	129900	52470	9380	4050	2550

11523200 TRINITY RIVER ABOVE COFFEE CREEK, NEAR TRINITY CENTER, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	83.0	225	326	415	553	646	834	1052	472	121	54.2	45.0
MAX	447	1664	1726	1899	2248	1632	1500	2414	1989	778	205	134
(WY)	1963	1974	1965	1974	1958	1993	1966	1983	1983	1983	1983	1978
MIN	24.3	37.4	34.1	35.9	47.2	60.0	137	204	85.7	29.0	20.9	24.9
(WY)	1992	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1958 - 1993	
ANNUAL TOTAL	102147		204891			
ANNUAL MEAN	279		561		405	
HIGHEST ANNUAL MEAN					851	1974
LOWEST ANNUAL MEAN					66.2	1977
HIGHEST DAILY MEAN	2720	Apr 17	7190	May 31	18900	Jan 16 1974
LOWEST DAILY MEAN	27	Sep 23	29	Oct 11	16	Sep 11 1977
ANNUAL SEVEN-DAY MINIMUM	28	Sep 23	29	Oct 11	16	Sep 8 1977
INSTANTANEOUS PEAK FLOW			11300	May 31	26500	Jan 16 1974
INSTANTANEOUS PEAK STAGE			13.06	May 31	13.78	Nov 16 1981
ANNUAL RUNOFF (AC-FT)	202600		406400		293200	
10 PERCENT EXCEEDS	826		1620		1020	
50 PERCENT EXCEEDS	88		148		171	
90 PERCENT EXCEEDS	30		42		37	

11525400 CLAIR ENGLE LAKE NEAR LEWISTON, CA

LOCATION.--Lat 40°48'05", long 122°45'44", in NW 1/4 SW 1/4 sec.15, T.34 N., R.8 W., Trinity County, Hydrologic Unit 18010211, Trinity Nationel Forest, Whiskeytown-Sheste-Trinity Netional Recreation Area, on side of intake structure of Trinity Dam on Trinity River, 9 mi north of Lewiston.
DRAINAGE AREA.--692 mi^2.

PERIOD OF RECORD.--November 1960 to current year. Prior to October 1963 published as Trinity Lake near Lewiston.
GAGE.--Water-atage recorder. Detum of gage is see level (levels by U.S. Bureau of Reclametion). Prior to Jan. 4, 1962, nonrecording gege at same site and detum. Contents based on cepacity table provided by U.S. Bureau of Reclamation, dated April 1962.

REMARKS.--The lake is formed by an eerthfill dam completed in November 1960. Storage began Nov. 23, 1960. Usable capacity, 2,437,700 acre-ft between elevetions 1,995.5 ft, elevation of invert of river outlets, and 2,370.0 ft, crest of glory hole spillway. Deed storege, 10,000 acre-ft. Operating pool is from elevation 2,145.0 ft, capacity, 312,621 ecre-ft, to 2,370.0 ft, cepacity, 2,447,700 acre-ft. Figures given represent total contents at 2400 hours. Lake is used for power generation, flood control, and recreation. See schematic diagram of Klamath River and Trinity River besins.
COOPERATION.--Records were provided by U.S. Bureau of Reclamation, not rounded to U.S. Geological Survey standards.

EXTREMES (at 2400) FOR PERIOD OF RECORD.--Maximum contents, 2,588,000 ecre-ft, Jan. 19, 1974, elevation, 2,378.32 ft; minimum since first filling, 222,400 ecre-ft, Nov. 9, 1977, elevation, 2,120.22 ft.
EXTREMES (at 2400) FOR CURRENT YEAR.--Maximum contents, 2,084,422 acre-ft, July 12, 13, elevation, 2,346.69 ft; minimum, 666,508 acre-ft, Dec. 5, elevation, 2,212.26 ft.

Capacity table (elevetion, in feet, and contents, in acre-feet)
(Based on teble provided by U.S. Bureau of Reclamation, dated April 1962)

2,100	162,231	2,250	955,140
2,140	292,859	2,310	1,583,586
2,190	529,611	2,380	2,616,989

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	836937	752560	666843	690463	753074	897055	1281565	1405490	1861843	2068714	2064579	2008442
2	834974	749482	666843	690944	754320	899450	1289405	1412407	1878700	2070785	2063395	2006550
3	834662	745834	666843	691285	755639	903254	1297496	1425837	1889694	2072705	2061768	2003642
4	832699	739941	666576	691628	757332	907239	1307367	1435625	1900732	2074630	2059700	2000580
5	831445	733931	666509	692042	762717	911399	1316534	1444639	1911828	2076706	2056903	1997549
6	829260	728532	666910	692111	769837	916413	1323116	1455339	1922966	2078042	2053812	1994218
7	827154	724017	666777	693286	775876	922704	1329066	1465503	1931163	2079821	2051160	1990887
8	824112	718235	668445	694186	786758	930124	1336690	1474401	1939396	2081455	2048659	1987846
9	822174	711148	669379	695084	796750	938781	1344139	1482866	1949219	2082940	2046743	1984809
10	820702	706292	676297	695707	805370	950759	1350835	1495795	1958069	2083386	2045863	1983514
11	819538	701820	679814	696054	813510	962057	1357101	1510361	1967390	2084125	2044097	1982503
12	817601	700355	681513	696606	819616	971788	1361034	1522715	1976738	2084422	2043363	1981493
13	816053	699169	682463	697506	824190	982031	1363398	1531600	1986107	2084422	2041899	1979765
14	814590	697713	683075	699796	828091	993765	1363398	1538924	1986831	2083679	2040138	1978322
15	812973	694255	683619	701820	831445	1007105	1363961	1546388	1993928	2082495	2039115	1974718
16	811047	689230	683891	703914	834426	1025902	1365536	1556594	2000300	2080712	2037354	1971119
17	808659	686074	684298	705518	837723	1070280	1369930	1566962	2010913	2079082	2035156	1967820
18	806440	682397	684570	706783	841265	1102158	1371401	1584211	2017903	2077894	2032808	1965240
19	804144	678999	684910	709177	850845	1123280	1374119	1593450	2025496	2075669	2031784	1962372
20	802538	675355	685047	719442	862657	1138917	1376046	1602850	2032221	2074481	2031197	1960075
21	801927	673401	685253	726949	869416	1151771	1377290	1620988	2036473	2071969	2030023	1959788
22	799564	671583	685321	734437	874912	1163934	1378650	1638767	2039845	2069897	2028854	1959074
23	795459	669178	685390	738203	879532	1185623	1380461	1645780	2043804	2069601	2026957	1955924
24	790157	669111	685390	740882	883609	1206494	1381370	1664382	2047775	2069897	2025057	1954785
25	784875	668913	685458	742992	887198	1220112	1382054	1683118	2051897	2070045	2023015	1953500
26	780368	668512	685596	744667	890233	1230428	1383762	1701997	2055577	2070193	2021115	1953214
27	775876	668311	685802	746197	892614	1239978	1383534	1721143	2058520	2070193	2019365	1951647
28	768426	668245	686280	747437	894832	1248228	1384902	1738430	2061031	2070489	2016884	1949933
29	764346	667710	686898	748968	---	1255893	1391736	1743602	2063247	2068274	2015714	1948651
30	758661	667111	687583	750287	---	1263593	1398608	1776936	2066646	2067090	2014258	1947651
31	753586	---	689571	751533	---	1271113	---	1838585	---	2065611	2011204	---
MAX	836937	752560	689571	751533	894832	1271113	1398608	1838585	2066646	2084422	2064579	2008442
MIN	753586	667111	666509	690463	753074	897055	1281565	1405490	1861943	2065611	2011204	1947651
a	2224.66	2212.35	2215.67	2224.38	2242.84	2283.01	2294.54	2329.49	2345.49	2345.42	2341.71	2337.30
b	-84687	-86475	+22460	+61962	+143299	+376281	+127495	+439977	+228061	-1035	-54407	-63553
c	1432	467	146	68	379	1236	2503	3978	6763	7778	7229	5305

CAL YR 1992 b +149256
WTR YR 1993 b +1109378

a Elevetion, in feet, at end of month.
b Change in contents, in ecre-feet.
c Eveporetion, in acre-feet, provided by U.S. Bureau of Reclamation; not reviewed by U.S. Geological Survey.

11525430 JUDGE FRANCIS CARR POWERPLANT NEAR FRENCH GULCH, CA

LOCATION.--Lat 40°38'49", long 122°37'34", Shasta County, Hydrologic Unit 18010212, at powerplant 1.6 mi downstream from Mill Creek and 3.8 mi south of French Gulch.

PERIOD OF RECORD.--April 1963 to current year.

GAGE.--Recorded powerplant output.

REMARKS.--No estimated daily discharges. Water is diverted from Trinity River at NW 1/4 SE 1/4 sec.8, T.33 N., R.8 W., through a tunnel to powerplant and then into Whiskeytown Lake (station 11371700). See schematic diagram of Klamath River and Trinity River basins.

COOPERATION.--Records were provided by U.S. Bureau of Reclamation, not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,000 ft^3/s, Oct. 18, 1987; no flow for many days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	327	2011	.00	.00	.00	.00	.00	.00	.00	.00	778	1107
2	327	1963	.00	.00	.00	.00	.00	60	.00	.00	1027	710
3	236	2264	.00	.00	.00	.00	.00	30	.00	.00	966	1177
4	235	2934	.00	.00	.00	.00	.00	14	.00	.00	767	1371
5	235	2939	.00	3	.00	.00	18	25	.00	.00	1079	780
6	335	2589	.00	262	.00	.00	32	25	.00	.00	1164	693
7	553	2060	.00	.00	.00	.00	4	41	.00	.00	928	1258
8	1171	3057	.00	.00	.00	.00	.00	.00	.00	.00	980	1376
9	465	3180	.00	.00	.00	.00	.00	.00	.00	.00	497	1194
10	341	2267	.00	.00	.00	.00	.00	.00	.00	459	.00	.00
11	335	2300	.00	.00	.00	.00	.00	.00	.00	.00	466	.00
12	336	519	.00	14	.00	.00	.00	.00	.00	.00	8	.00
13	328	507	.00	.00	.00	.00	.00	.00	.00	.00	439	.00
14	337	510	.00	71	.00	.00	.00	.00	.00	598	606	.00
15	327	1661	.00	.00	.00	.00	.00	65	.00	735	.00	1400
16	667	2257	.00	.00	.00	33	.00	.00	19	1105	526	1402
17	782	1293	5	.00	.00	152	.00	.00	.00	975	1042	1237
18	830	1669	.00	.00	.00	.00	.00	.00	.00	968	926	780
19	777	1614	.00	.00	.00	.00	.00	.00	.00	937	3	719
20	556	1691	.00	.00	.00	.00	29	.00	.00	720	.00	630
21	652	1032	.00	.00	.00	.00	.00	.00	.00	1327	490	.00
22	986	790	.00	.00	.00	58	.00	.00	.00	1172	503	.00
23	1703	993	.00	.00	76	.00	.00	.00	.00	597	475	986
24	2022	10	.00	.00	.00	.00	.00	.00	.00	.00	397	225
25	2343	14	.00	.00	.00	51	.00	.00	.00	.00	626	224
26	2122	.00	.00	.00	.00	20	.00	.00	.00	.00	624	.00
27	2041	.00	.00	.00	.00	63	.00	961	.00	.00	595	420
28	3290	.00	.00	73	.00	.00	.00	.00	.00	.00	1351	455
29	2458	.00	.00	.00	---	12	.00	.00	.00	1073	358	528
30	3139	.00	.00	.00	---	.00	.00	.00	.00	580	41	336
31	2852	---	.00	.00	---	.00	---	.00	---	783	1260	---
TOTAL	33108	42124.00	5.00	423.00	76.00	389.00	83.00	1221.00	19.00	12029.00	18922.00	19008.00
MEAN	1068	1404	.16	13.6	2.71	12.5	2.77	39.4	.63	388	610	634
MAX	3290	3180	5.0	262	76	152	32	961	19	1330	1350	1400
MIN	235	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	65670	83550	9.9	839	151	772	165	2420	38	23860	37530	37700

11525430 JUDGE FRANCIS CARR POWERPLANT NEAR FRENCH GULCH, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1456	921	755	654	841	915	1146	1291	1738	2270	2199	2178
MAX	3363	2158	2891	2755	3222	3111	3220	3512	3662	3589	3236	3504
(WY)	1988	1967	1979	1982	1974	1974	1970	1974	1969	1968	1977	1988
MIN	214	18.0	.16	.000	.34	.000	.000	.097	.63	253	507	457
(WY)	1981	1992	1993	1986	1988	1988	1978	1991	1993	1978	1992	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1963 - 1993	
ANNUAL TOTAL	217472.00		127407.00			
ANNUAL MEAN	594		349		1380	
HIGHEST ANNUAL MEAN					2485	1974
LOWEST ANNUAL MEAN					301	1978
HIGHEST DAILY MEAN	3290	Oct 28	3290	Oct 28	4000	Oct 18 1987
LOWEST DAILY MEAN	.00	Jan 1	.00	Nov 26	.00	May 6 1963
ANNUAL SEVEN-DAY MINIMUM	.00	Feb 19	.00	Nov 26	.00	Oct 14 1969
ANNUAL RUNOFF (AC-FT)	431400		252700		999500	
10 PERCENT EXCEEDS	1720		1180		3140	
50 PERCENT EXCEEDS	337		.00		1170	
90 PERCENT EXCEEDS	.00		.00		.00	

11525500 TRINITY RIVER AT LEWISTON, CA

LOCATION.--Lat 40°43'10", long 122°48'09", in SW 1/4 NW 1/4 sec.17, T.33 N., R.8 W., Trinity County, Hydrologic Unit 18010211, on right bank 400 ft upstream from Deedwood Creek, 0.8 mi downstream from Lewiston Diversion Dam, and 0.8 mi northeast of Lewiston.

DRAINAGE AREA.--719 mi^2.

PERIOD OF RECORD.--August 1911 to current year.
CHEMICAL DATA: Water yeers 1951-81.
WATER TEMPERATURE: Weter years 1952-55, 1958-83.
SEDIMENT DATA: Water yeers 1955-61.

REVISED RECORDS.--WSP 331: 1911-12. WSP 1181: 1949. WSP 1929: Drainege area.

GAGE.--Water-stage recorder. Datum of gage is 1,815.95 ft above sea level. See WSP 1929 for history of changes prior to July 7, 1964.

REMARKS.--No estimeted deily discharges. Records good. Flow completely regulated by Clair Engle Lake (station 11525400) beginning in November 1960 and Lewiston Lake, cepacity, 14,660 ecre-ft, when diversion to Judge Francis Carr Powerplant (station 11525430) began in April 1963. Small diversions above head of Clair Engle Lake for irrigetion, power, placer mining, and domestic use between Trinity Dam and station at Lewiston. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discherge, 71,600 ft^3/s, Dec. 22, 1955, gage height, 27.3 ft, from floodmerks, site and datum then in use; minimum, 23 ft^3/s, July 30, 1924. Since completion of Trinity Dam in 1960, maximum discherge, 14,400 ft^3/s, Jan. 18, 1974, gage height, 10.41 ft; minimum daily, 100 ft^3/s, Apr. 14, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1861 reached a stege of 21.6 ft, from floodmerks, at site 1.1 mi downstream at different datum, discherge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,270 ft^3/s, Apr. 13, gage height, 6.50 ft; minimum daily, 290 ft^3/s, Jan. 10, 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	529	333	324	293	311	308	337	1590	327	364	470	421
2	535	327	320	291	310	317	338	1580	324	379	468	429
3	531	328	315	291	311	324	338	1580	324	477	425	452
4	531	323	317	291	310	323	338	1520	339	472	442	453
5	532	322	321	291	312	324	338	689	339	469	466	513
6	534	324	329	292	311	323	335	316	337	447	486	1270
7	532	324	324	293	311	322	333	301	338	442	502	636
8	534	322	313	291	311	324	336	301	336	439	503	444
9	507	322	309	291	311	323	337	301	336	438	495	456
10	445	325	308	290	311	323	337	301	335	439	497	455
11	445	320	304	291	311	321	336	301	326	448	473	456
12	446	320	304	290	310	321	826	301	320	454	437	456
13	445	319	302	291	311	321	2280	302	321	456	477	456
14	447	319	303	291	311	322	3040	301	320	456	478	459
15	424	318	309	292	311	323	3060	301	322	456	475	460
16	390	319	316	291	310	326	3070	300	323	458	474	456
17	388	326	317	291	310	329	3060	301	322	461	473	457
18	388	332	315	291	311	325	3040	301	321	460	475	457
19	388	331	317	291	312	331	3040	301	320	461	474	460
20	379	331	316	303	314	337	3020	301	319	462	461	464
21	372	333	317	296	311	337	3010	301	319	462	447	462
22	363	334	317	294	311	336	2980	301	321	463	446	457
23	353	334	317	292	311	335	2980	301	320	463	452	461
24	345	334	317	291	311	335	2980	308	319	463	428	456
25	348	331	317	291	310	335	2990	313	321	465	420	458
26	346	328	317	301	309	337	2990	310	321	473	427	373
27	340	329	317	309	307	336	2990	312	320	471	445	361
28	333	335	318	307	307	335	2990	311	321	469	492	327
29	337	342	317	307	---	335	2980	311	322	467	470	306
30	334	335	316	310	---	334	2350	317	341	464	459	306
31	330	---	334	310	---	336	---	326	---	468	446	---
TOTAL	13151	9820	9787	9144	8697	10158	57379	14900	9774	14066	14383	14077
MEAN	424	327	316	295	311	328	1913	481	326	454	464	469
MAX	535	342	334	310	314	337	3070	1590	341	477	503	1270
MIN	330	318	302	290	307	308	333	300	319	364	420	306
AC-FT	26090	19480	19410	18140	17250	20150	113800	29550	19390	27900	28530	27920

11525500 TRINITY RIVER AT LEWISTON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1960, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	302	742	1257	1572	2544	2653	3675	3932	2131	611	201	158
MAX	2174	3055	5319	5734	11670	6116	6986	9062	6311	2578	628	423
(WY)	1951	1921	1956	1956	1958	1941	1915	1958	1915	1941	1941	1912
MIN	92.3	121	147	169	331	519	725	442	115	42.7	41.0	41.1
(WY)	1918	1930	1937	1937	1933	1924	1924	1924	1924	1924	1924	1924

SUMMARY STATISTICS	WATER YEARS 1912 - 1960	
ANNUAL MEAN	1641	
HIGHEST ANNUAL MEAN	3721	1958
LOWEST ANNUAL MEAN	367	1924
HIGHEST DAILY MEAN	38700	Dec 22 1955
LOWEST DAILY MEAN	28	Jul 30 1924
ANNUAL SEVEN-DAY MINIMUM	31	Jul 26 1924
INSTANTANEOUS PEAK FLOW	71600	Dec 22 1955
INSTANTANEOUS PEAK STAGE	27.3	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	1189000	
10 PERCENT EXCEEDS	4310	
50 PERCENT EXCEEDS	732	
90 PERCENT EXCEEDS	132	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	270	293	358	489	414	576	652	637	618	336	288	280
MAX	424	849	2285	4038	1782	5489	5029	3937	4668	1096	577	531
(WY)	1993	1984	1984	1974	1983	1983	1963	1963	1983	1983	1982	1992
MIN	203	220	144	145	145	149	130	149	146	142	139	150
(WY)	1966	1971	1977	1977	1977	1977	1976	1976	1976	1976	1976	1966

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1962 - 1993	
ANNUAL TOTAL	179508		185336			
ANNUAL MEAN	490		508		434	
HIGHEST ANNUAL MEAN					1784	1983
LOWEST ANNUAL MEAN					165	1977
HIGHEST DAILY MEAN	6450	Jun 13	3070	Apr 16	13800	Jan 19 1974
LOWEST DAILY MEAN	277	Jan 2	290	Jan 10	100	Apr 14 1976
ANNUAL SEVEN-DAY MINIMUM	283	Jan 1	291	Jan 8	103	Apr 12 1976
INSTANTANEOUS PEAK FLOW			3270	Apr 13	14400	Jan 18 1974
INSTANTANEOUS PEAK STAGE			6.50	Apr 13	10.41	Jan 18 1974
ANNUAL RUNOFF (AC-FT)	356100		367600		314500	
10 PERCENT EXCEEDS	531		505		554	
50 PERCENT EXCEEDS	345		333		289	
90 PERCENT EXCEEDS	314		301		154	

11525580 LITTLE GRASS VALLEY CREEK NEAR LEWISTON, CA

LOCATION.--Lat 40°39'45", long 122°47'57", in NE 1/4 NW 1/4 sec.5, T.32 N., R.8 W., Trinity County, Hydrologic Unit 18010211, on left bank 0.2 mi upstream from the confluence with Grass Valley Creek, 0.9 mi west of Buckhorn Station, and 3.1 mi south of Lewiston on State Highway 299.

DRAINAGE AREA.--10.7 mi^2.

PERIOD OF RECORD.--
SEDIMENT DATA: Water years 1985 to current yeer.

REMARKS.--Zero bedload observed at flows less then 3.5 ft^3/s. Record is collected for hydrologic and sediment-transport correlation studies with Grass Valley Creek at Fawn Lodge, near Lewiston (station 11525600).

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT										
08...	1050	1.4	8.0	2	0.01	--	--	--	--	--
29...	1140	3.9	10.0	22	0.23	70	--	--	--	--
NOV										
05...	1105	1.8	9.5	2	0.01	--	--	--	--	--
JAN										
04...	1140	2.5	1.5	4	0.03	72	--	--	--	--
20...	1515	61	3.5	534	88	69	--	--	--	--
FEB										
04...	1200	6.5	4.0	10	0.18	--	--	--	--	--
19...	1145	27	4.5	124	9.0	52	--	--	--	--
MAR										
04...	1340	13	6.5	23	0.81	55	--	--	--	--
APR										
07...	1130	11	7.0	14	0.42	65	--	--	--	--
MAY										
06...	1120	7.2	10.0	10	0.19	--	--	--	--	--
31...	1200	33	10.5	282	25	55	66	78	93	100
JUN										
02...	1245	14	10.5	37	1.4	63	75	87	100	--
JUL										
01...	1145	6.2	12.0	8	0.13	--	--	--	--	--
AUG										
04...	1020	3.5	14.0	3	0.03	--	--	--	--	--
SEP										
10...	0920	2.4	12.0	7	0.05	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	TEMPER-ATURE WATER (DEG C)	NUMBER OF SAM-PLING POINTS (COUNT)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM
JAN							
04...	1145	1.5	1	2.5	1	3	14
04...	1150	1.5	1	2.5	--	2	11
04...	1155	1.5	1	2.5	--	3	10
MAR							
04...	1345	6.5	1	13	1	3	6
04...	1350	6.5	1	13	--	--	4
04...	1355	6.5	1	13	--	2	8
MAY							
06...	1125	10.0	1	7.2	1	7	18
06...	1130	10.0	1	7.2	1	6	19
06...	1135	10.0	1	7.2	3	18	34
JUL							
01...	1210	12.0	1	6.2	1	6	16
01...	1215	12.0	1	6.2	--	2	10
01...	1220	12.0	1	6.2	1	9	22

11525580 LITTLE GRASS VALLEY CREEK NEAR LEWISTON, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
JAN						
04...	42	79	98	100	--	--
04...	46	84	98	100	--	--
04...	32	70	97	100	--	--
MAR						
04...	17	46	88	100	--	--
04...	16	37	79	98	100	--
04...	22	53	89	98	100	--
MAY						
06...	36	60	87	98	99	100
06...	36	58	88	98	100	--
06...	47	62	83	99	100	--
JUL						
01...	30	53	85	98	100	--
01...	26	53	88	97	100	--
01...	40	60	82	95	99	100

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	BORI-ZONTAL WIDTH OF VER-TICAL (FEET)
JAN									
20...	1525	1000	1120	0.250	0	1520	1530	15	0.5
20...	1540	1000	1120	0.250	0	1535	1545	15	0.5
FEB									
04...	1220	1000	1120	0.250	0	1215	1225	30	0.5
04...	1235	1000	1120	0.250	0	1230	1240	30	0.5
19...	1200	1000	1120	0.250	0	1155	1205	30	0.5
19...	1210	1000	1120	0.250	0	1205	1215	30	0.5
APR									
07...	1155	1000	1120	0.250	0	1150	1200	30	0.5
07...	1210	1000	1120	0.250	0	1205	1215	30	0.5
MAY									
31...	1220	1000	1120	0.250	0	1210	1225	30	0.4
31...	1235	1000	1120	0.250	0	1230	1240	30	0.4
JUN									
02...	1300	1000	1120	0.250	0	1255	1305	30	0.4
02...	1310	1000	1120	0.250	0	1305	1315	30	0.4
JUL									
01...	1155	1000	1120	0.250	0	1150	1200	30	0.5
01...	1205	1000	1120	0.250	0	1200	1210	30	0.5

11525580 LITTLE GRASS VALLEY CREEK NEAR LEWISTON, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)
JAN								
20...	2	20	20	0.50	61	3.5	1.4	11
20...	2	20	20	0.50	61	3.5	0.81	11
FEB								
04...	2	14	14	0.65	6.5	4.0	0.34	2.2
04...	2	14	14	0.65	6.5	4.0	0.30	2.2
19...	2	14	14	1.50	27	4.5	2.9	17
19...	2	14	14	1.50	27	4.5	2.0	17
APR								
07...	2	13	13	1.80	11	7.0	2.0	8.4
07...	2	13	13	1.80	11	7.0	0.64	8.4
MAY								
31...	2	19	19	0.60	33	10.5	4.0	36
31...	2	19	19	0.60	33	10.5	5.4	36
JUN								
02...	2	21	21	1.40	14	10.5	0.14	1.2
02...	2	21	21	1.40	14	10.5	0.13	1.2
JUL								
01...	2	11	11	2.50	6.2	12.0	0.28	1.3
01...	2	11	11	2.50	6.2	12.0	0.20	1.3

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
JAN								
20...	3	15	34	55	83	96	98	100
20...	5	19	40	66	93	100	--	--
FEB								
04...	7	25	51	77	93	99	100	--
04...	7	20	44	72	92	98	100	--
19...	3	14	39	67	94	100	--	--
19...	3	12	34	65	94	100	--	--
APR								
07...	1	7	33	69	95	100	--	--
07...	2	12	38	66	93	100	--	--
MAY								
31...	2	10	27	51	86	98	100	--
31...	2	9	25	50	84	99	100	--
JUN								
02...	9	36	64	82	95	99	100	--
02...	10	37	66	80	94	100	--	--
JUL								
01...	4	20	43	69	95	100	--	--
01...	6	26	48	71	95	100	--	--

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA

LOCATION.--Lat 40°40'35", long 122°49'46", in SW 1/4 NE 1/4 sec.36, T.33 N., R.9 W., Trinity County, Hydrologic Unit 18010211, on right bank 0.1 mi upstream from Phillips Gulch and 2.5 mi southwest of Lewiston.

DRAINAGE AREA.--30.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1975 to current year.

REVISED RECORDS.--WDR CA-86-2: 1983(M)

GAGE.--Water-stage recorder. Datum of gage is 2,049.73 ft above sea level (California State Highway Department Benchmark).

REMARKS.--Records fair. Minor regulation by Buckhorn Reservoir since 1990, capacity 1,090 acre-ft; small pumping diversions upstream from station. See schemetic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,140 ft^3/s, Feb. 28, 1983; gege height, 10.11 ft, from rating curve extended above 700 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 4.3 ft^3/s, many days in 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1445	371	6.45	Mar. 18	0530	227	6.00
Feb. 19	1945	319	6.30	May 31	0330	*548	*6.92

Minimum daily, 7.9 ft^3/s, Oct. 5-7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	17	12	22	39	73	104	63	173	38	22	14
2	8.6	14	12	18	38	73	95	63	136	38	21	14
3	8.1	14	12	17	39	71	93	64	124	37	21	14
4	8.0	13	12	17	40	73	94	62	127	36	20	14
5	7.9	12	12	17	85	70	89	61	121	36	19	14
6	7.9	13	14	17	90	71	84	59	111	36	19	14
7	7.9	15	14	24	84	72	83	59	102	35	19	13
8	8.1	15	14	25	182	74	83	57	93	33	19	12
9	8.2	15	24	22	171	82	83	56	86	29	19	12
10	8.2	15	e90	20	151	92	79	56	82	29	18	11
11	8.2	15	53	19	169	90	75	55	79	29	19	11
12	8.2	15	32	18	137	88	73	55	75	29	18	11
13	8.7	15	24	20	116	89	70	53	70	29	18	11
14	10	14	21	27	102	92	69	52	66	29	18	12
15	11	14	19	25	93	91	69	52	64	29	18	12
16	11	13	17	25	84	113	67	51	62	28	18	12
17	11	12	17	24	79	204	88	47	60	28	17	12
18	11	12	17	23	99	162	86	43	57	28	16	12
19	11	12	16	25	209	139	76	44	55	28	16	13
20	11	12	16	209	192	125	72	46	53	27	16	13
21	12	13	15	145	154	113	70	47	51	24	16	13
22	11	14	15	134	135	104	68	45	50	24	16	13
23	11	13	15	85	123	133	71	44	50	24	15	13
24	11	13	14	66	106	170	70	44	48	24	15	13
25	11	12	14	57	95	137	67	57	47	24	15	13
26	11	12	14	53	91	121	66	72	45	23	15	13
27	11	12	14	48	86	119	64	113	44	23	15	13
28	11	12	17	44	79	111	63	98	43	22	15	13
29	14	12	15	42	---	103	63	79	42	22	15	13
30	18	12	14	41	---	98	63	128	39	22	14	13
31	16	---	21	40	---	100	---	327	---	22	14	---
TOTAL	319.8	402	616	1369	3068	3253	2297	2152	2255	885	536	381
MEAN	10.3	13.4	19.9	44.2	110	105	76.6	69.4	75.2	28.5	17.3	12.7
MAX	18	17	90	209	209	204	104	327	173	38	22	14
MIN	7.9	12	12	17	38	70	63	43	39	22	14	11
AC-FT	634	797	1220	2720	6090	6450	4560	4270	4470	1760	1060	756

e Estimated.

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	12.5	24.5	41.2	58.6	84.7	102	65.4	48.7	29.8	16.0	11.0	10.9
MAX	18.8	70.4	220	259	263	531	186	174	99.8	39.6	22.3	23.0
(WY)	1990	1985	1984	1978	1986	1983	1983	1983	1983	1983	1983	1983
MIN	6.94	8.88	8.20	10.2	9.10	13.8	12.3	15.1	9.64	5.85	4.95	6.57
(WY)	1992	1991	1991	1991	1991	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1976 - 1993	
ANNUAL TOTAL	14530.5		17533.8			
ANNUAL MEAN	39.7		48.0		43.2	
HIGHEST ANNUAL MEAN					136	1983
LOWEST ANNUAL MEAN					10.2	1977
HIGHEST DAILY MEAN	420	Feb 12	327	May 31	2420	Mar 2 1983
LOWEST DAILY MEAN	7.0	Sep 28	7.9	Oct 5	4.3	Aug 12 1977
ANNUAL SEVEN-DAY MINIMUM	7.2	Sep 24	8.0	Oct 3	4.4	Aug 11 1977
INSTANTANEOUS PEAK FLOW			548	May 31	4140	Feb 28 1983
INSTANTANEOUS PEAK STAGE			6.92	May 31	10.11	Feb 28 1983
ANNUAL RUNOFF (AC-FT)	28820		34780		31280	
10 PERCENT EXCEEDS	106		105		92	
50 PERCENT EXCEEDS	17		28		19	
90 PERCENT EXCEEDS	9.2		12		8.7	

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.
WATER TEMPERATURE: Water years 1976 to current year.
SEDIMENT DATA: Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: November 1975 to current year.

REMARKS.--Sediment samples were collected on most days where s water temperature is published. Zero bedload observed at flows less than 37 ft^3/s.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATION: Maximum daily mean, 9,550 mg/L, Mar. 2, 1983; minimum daily mean, 0 mg/L several days most years.
SEDIMENT LOAD: Maximum daily, 65,200 tons, Mar. 2, 1983; minimum daily, 0 tons several days most years.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION: Maximum daily mean, 482 mg/L, May 31; minimum daily mean, 1 mg/L many days.
SEDIMENT LOAD: Maximum daily, 426 tons, May 31; minimum daily, .02 tons many days.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
29...	1010	15	10.5	5	0.20	75	--	--	--	--	--
DEC											
08...	1100	14	4.5	2	0.08	70	--	--	--	--	--
11...	1100	52	5.0	20	2.8	40	--	--	--	--	--
JAN											
04...	1000	17	1.5	3	0.14	80	--	--	--	--	--
20...	1210	286	3.0	1220	942	41	--	--	--	--	--
25...	1345	56	3.5	12	1.8	61	--	--	--	--	--
FEB											
19...	0955	162	5.0	42	18	39	--	--	--	--	--
MAR											
04...	1115	71	5.5	11	2.2	39	--	--	--	--	--
APR											
07...	1015	83	7.0	12	2.7	26	--	--	--	--	--
MAY											
31...	0925	341	11.5	510	470	18	24	32	46	65	82
JUN											
02...	0945	138	10.0	38	0.14	31	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	TEMPERATURE WATER (DEG C)	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM
JAN								
04...	1025	1.5	1	17	--	1	3	6
04...	1030	1.5	1	17	--	--	3	9
04...	1035	1.5	1	17	--	1	3	10
04...	1040	1.5	1	17	--	1	4	22
04...	1045	1.5	1	17	--	2	8	28
MAY								
06...	1005	9.0	1	59	--	1	4	9
06...	1010	9.0	1	59	--	--	--	1
06...	1015	9.0	1	59	--	--	--	--
06...	1020	9.0	1	59	--	--	--	1
06...	1025	9.0	1	59	--	--	1	3
JUL								
01...	1000	12.0	1	39	1	3	8	18
01...	1005	12.0	1	39	--	2	5	13
01...	1010	12.0	1	39	--	--	--	1
01...	1015	12.0	1	39	--	1	4	8
01...	1020	12.0	1	39	--	--	1	2

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
JAN							
04...	9	13	16	20	29	100	--
04...	14	17	19	25	67	100	--
04...	19	28	33	44	68	100	--
04...	54	68	71	77	100	--	--
04...	54	74	82	85	100	--	--
MAY							
06...	16	24	30	38	59	76	100
06...	3	4	6	8	29	100	--
06...	1	2	4	7	28	54	100
06...	3	5	8	15	33	100	--
06...	4	8	12	19	65	100	--
JUL							
01...	29	48	60	76	100	--	--
01...	38	85	100	--	--	--	--
01...	1	3	5	15	43	100	--
01...	12	17	22	37	69	100	--
01...	3	5	8	27	67	100	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
JAN									
20...	1250	1000	1100	0.250	0	1225	1310	30	1.0
20...	1330	1000	1100	0.250	0	1315	1340	30	1.0
25...	1405	1000	1120	0.250	0	1355	1415	60	1.0
25...	1430	1000	1120	0.250	0	1420	1440	60	1.0
FEB									
19...	1020	1000	1120	0.250	0	1010	1025	30	1.5
19...	1040	1000	1120	0.250	0	1030	1045	30	1.5
MAR									
04...	1130	1000	1120	0.250	0	1125	1135	15	1.0
04...	1145	1000	1120	0.250	0	1140	1150	15	1.0
APR									
07...	1030	1000	1120	0.250	0	1025	1035	30	1.5
07...	1040	1000	1120	0.250	0	1035	1045	30	1.5
MAY									
31...	1005	1000	1100	0.250	0	0955	1015	30	2.0
31...	1030	1000	1100	0.250	0	1020	1040	30	2.0
JUN									
02...	1035	1000	1120	0.250	0	1030	1040	30	2.0
02...	1050	1000	1120	0.250	0	1045	1100	30	2.0

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
JAN									
20...	2	33	33	1.00	310	3.0	0.54	18	--
20...	2	33	33	1.00	346	3.0	0.53	18	1
25...	2	18	18	2.90	58	3.5	0.60	10	--
25...	2	18	18	2.90	58	3.5	0.51	10	--
FEB									
19...	2	19	19	3.00	166	5.0	1.20	44	--
19...	2	19	19	3.00	169	5.0	1.90	44	--
MAR									
04...	2	28	28	1.00	71	5.5	0.02	0.70	--
04...	2	28	28	1.00	71	5.5	0.03	0.70	1
APR									
07...	2	14	14	7.00	83	7.0	0.19	9.4	--
07...	2	14	14	7.00	83	7.0	0.71	9.4	--
MAY									
31...	2	16	16	3.00	328	11.5	1.40	31	--
31...	2	16	16	3.00	322	11.5	0.58	31	--
JUN									
02...	2	16	16	1.00	135	10.0	1.50	48	--
02...	2	16	16	1.00	135	10.0	1.50	48	--

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
JAN									
20...	3	10	30	60	92	99	100	--	--
20...	3	11	28	57	89	99	100	--	--
25...	1	4	21	61	92	99	100	--	--
25...	1	3	21	64	94	100	--	--	--
FEB									
19...	2	12	44	74	96	100	--	--	--
19...	1	9	38	67	87	92	93	94	100
MAR									
04...	3	17	60	92	98	100	--	--	--
04...	2	14	39	69	86	92	100	--	--
APR									
07...	2	14	44	72	94	100	--	--	--
07...	1	6	29	58	84	90	90	90	100
MAY									
31...	5	17	38	58	84	96	100	--	--
31...	7	26	52	75	94	100	--	--	--
JUN									
02...	2	10	37	70	92	99	99	100	--
02...	1	6	27	61	90	98	100	--	--

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	3.0	6.5	7.5	---	11.5	12.0	---	16.5
2	---	11.5	5.5	1.0	---	---	---	---	10.0	---	---	---
3	11.0	---	---	---	---	---	---	---	10.5	12.5	17.0	---
4	---	---	3.0	1.5	3.5	5.5	---	12.0	11.0	---	16.0	16.0
5	---	10.0	---	---	5.0	---	7.0	---	---	---	---	---
6	---	10.0	---	---	---	---	---	9.0	---	18.0	---	---
7	12.0	---	4.5	3.0	---	---	7.0	---	10.5	---	17.0	---
8	9.0	---	4.5	---	5.5	---	9.0	---	---	---	---	17.0
9	---	---	2.0	---	5.5	9.0	---	---	---	18.0	---	---
10	12.5	6.0	4.0	---	6.0	9.0	9.0	10.5	---	---	---	14.0
11	---	---	5.0	2.0	5.0	---	---	---	10.0	---	16.5	14.0
12	---	6.0	---	---	5.0	---	---	---	---	---	---	---
13	11.5	---	---	---	---	9.5	---	---	---	17.0	---	---
14	---	---	3.5	3.0	---	---	---	12.5	---	---	17.0	14.5
15	---	---	---	---	---	9.0	---	---	15.0	---	---	---
16	---	5.5	---	---	4.5	9.5	9.0	---	---	17.0	---	---
17	---	---	4.0	---	---	8.0	9.0	---	---	---	16.5	14.5
18	11.5	---	---	---	5.5	9.5	---	11.0	12.0	---	---	---
19	---	---	---	3.0	5.0	10.0	---	---	---	---	---	---
20	11.0	5.0	---	3.0	4.5	10.0	---	12.0	---	16.5	---	---
21	---	---	---	3.5	---	---	8.0	---	14.5	---	---	13.0
22	10.0	4.5	4.0	3.5	6.0	11.0	---	---	---	---	18.0	---
23	---	---	---	3.0	6.0	10.0	9.5	---	---	18.0	---	---
24	---	---	---	---	---	7.0	---	12.5	---	---	16.5	13.0
25	---	6.0	---	3.5	---	---	---	12.5	---	---	---	---
26	10.0	---	---	---	---	---	---	12.0	13.0	---	---	---
27	---	---	---	---	6.0	8.0	---	12.0	---	18.0	---	---
28	---	---	3.5	3.5	---	---	7.0	12.0	---	---	---	12.0
29	10.5	---	---	---	---	---	---	---	16.0	---	---	---
30	10.0	4.0	3.0	---	---	9.5	12.0	12.0	---	14.0	17.0	13.5
31	10.0	---	---	---	---	---	---	11.5	---	---	---	---

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	8.8	1	.02	17	3	.14	12	4	.13
2	8.6	1	.02	14	3	.11	12	4	.13
3	8.1	1	.02	14	3	.11	12	3	.10
4	8.0	1	.02	13	4	.14	12	2	.06
5	7.9	1	.02	12	3	.10	12	2	.06
6	7.9	1	.02	13	3	.11	14	1	.04
7	7.9	1	.02	15	3	.12	14	1	.04
8	8.1	1	.02	15	3	.12	14	4	.15
9	8.2	1	.02	15	3	.12	24	33	2.1
10	8.2	1	.02	15	3	.12	e90	91	22
11	8.2	1	.02	15	3	.12	53	23	3.3
12	8.2	1	.02	15	3	.12	32	8	.69
13	8.7	1	.02	15	2	.08	24	4	.26
14	10	1	.03	14	2	.08	21	2	.11
15	11	1	.03	14	1	.04	19	2	.10
16	11	1	.03	13	1	.04	17	2	.09
17	11	1	.03	12	1	.03	17	2	.09
18	11	1	.03	12	2	.06	17	2	.09
19	11	1	.03	12	2	.06	16	2	.09
20	11	1	.03	12	3	.10	16	1	.04
21	12	1	.03	13	4	.14	15	1	.04
22	11	1	.03	14	5	.19	15	1	.04
23	11	1	.03	13	4	.14	15	1	.04
24	11	1	.03	13	4	.14	14	1	.04
25	11	1	.03	12	3	.10	14	1	.04
26	11	1	.03	12	3	.10	14	2	.08
27	11	1	.03	12	3	.10	14	2	.08
28	11	2	.06	12	3	.10	17	2	.09
29	14	5	.19	12	3	.10	15	1	.04
30	18	7	.34	12	3	.10	14	1	.04
31	16	3	.13	---	---	---	21	5	.28
TOTAL	319.8	---	1.40	402	---	3.13	616	---	30.48

e Estimated

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	22	3	.18	39	3	.32	73	16	3.2
2	18	1	.05	38	4	.41	73	13	2.6
3	17	2	.09	39	4	.42	71	10	1.9
4	17	3	.14	40	5	.54	73	10	2.0
5	17	3	.14	85	64	15	70	11	2.1
6	17	3	.14	90	49	12	71	10	1.9
7	24	3	.19	84	30	6.8	72	10	1.9
8	25	2	.13	182	233	114	74	11	2.2
9	22	2	.12	171	87	40	82	13	2.9
10	20	1	.05	151	72	28	92	17	4.2
11	19	1	.05	169	115	52	90	17	4.1
12	18	1	.05	137	40	15	88	16	3.8
13	20	1	.05	116	31	9.7	89	15	3.6
14	27	7	.51	102	24	6.6	92	15	3.7
15	25	7	.47	93	18	4.5	91	16	3.9
16	25	5	.34	84	13	2.9	113	52	16
17	24	4	.26	79	9	1.9	204	149	82
18	23	4	.25	99	34	9.1	162	47	21
19	25	9	.61	209	147	83	139	24	9.0
20	209	449	253	192	82	43	125	17	5.7
21	145	81	32	154	43	18	113	14	4.3
22	134	46	17	135	29	11	104	12	3.4
23	85	30	6.9	123	30	10	133	42	15
24	66	16	2.9	106	27	7.7	170	61	28
25	57	9	1.4	95	23	5.9	137	18	6.7
26	53	10	1.4	91	20	4.9	121	13	4.2
27	48	8	1.0	86	17	3.9	119	22	7.1
28	44	7	.83	79	17	3.6	111	21	6.3
29	42	5	.57	---	---	---	103	17	4.7
30	41	4	.44	---	---	---	98	13	3.4
31	40	4	.43	---	---	---	100	15	4.0
TOTAL	1369	---	321.69	3068	---	511.19	3253	---	264.8
		APRIL			MAY			JUNE	
1	104	18	5.1	63	4	.68	173	92	43
2	95	14	3.6	63	4	.68	136	47	17
3	93	12	3.0	64	4	.69	124	38	13
4	94	10	2.5	62	4	.67	127	32	11
5	89	8	1.9	61	4	.66	121	27	8.8
6	84	7	1.6	59	3	.48	111	23	6.9
7	83	10	2.2	59	3	.48	102	20	5.5
8	83	16	3.6	57	3	.46	93	18	4.5
9	83	13	2.9	56	3	.45	86	17	3.9
10	79	9	1.9	56	3	.45	82	16	3.5
11	75	8	1.6	55	3	.45	79	15	3.2
12	73	8	1.6	55	3	.45	75	13	2.6
13	70	7	1.3	53	4	.57	70	11	2.1
14	69	7	1.3	52	4	.56	66	10	1.8
15	69	6	1.1	52	4	.56	64	8	1.4
16	67	6	1.1	51	5	.69	62	7	1.2
17	88	23	5.5	47	5	.63	60	5	.81
18	86	27	6.3	43	6	.70	57	4	.62
19	76	17	3.5	44	5	.59	55	4	.59
20	72	10	1.9	46	5	.62	53	3	.43
21	70	7	1.3	47	4	.51	51	3	.41
22	68	6	1.1	45	4	.49	50	3	.40
23	71	10	1.9	44	3	.36	50	4	.54
24	70	12	2.3	44	3	.36	48	5	.65
25	67	9	1.6	57	14	2.2	47	5	.63
26	66	8	1.4	72	29	5.6	45	6	.73
27	64	6	1.0	113	36	11	44	5	.59
28	63	5	.85	98	17	4.5	43	4	.46
29	63	4	.68	79	8	1.7	42	3	.34
30	63	4	.68	128	243	84	39	4	.42
31	---	---	---	327	482	426	---	---	---
TOTAL	2297	---	66.31	2152	---	548.24	2255	---	137.02

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	38	4	.41	22	1	.06	14	4	.15
2	38	3	.31	21	2	.11	14	4	.15
3	37	3	.30	21	3	.17	14	4	.15
4	36	3	.29	20	3	.16	14	4	.15
5	36	4	.39	19	2	.10	14	4	.15
6	36	4	.39	19	2	.10	14	4	.15
7	35	4	.38	19	3	.15	13	4	.14
8	33	3	.27	19	3	.15	12	4	.13
9	29	3	.23	19	2	.10	12	4	.13
10	29	2	.16	18	2	.10	11	3	.09
11	29	2	.16	19	2	.10	11	1	.03
12	29	1	.08	18	2	.10	11	1	.03
13	29	1	.08	18	1	.05	11	1	.03
14	29	1	.08	18	1	.05	12	1	.03
15	29	2	.16	18	1	.05	12	1	.03
16	28	2	.15	18	2	.10	12	1	.03
17	28	2	.15	17	2	.09	12	1	.03
18	28	3	.23	16	2	.09	12	1	.03
19	28	3	.23	16	2	.09	13	1	.04
20	27	4	.29	16	2	.09	13	1	.04
21	24	3	.19	16	2	.09	13	1	.04
22	24	2	.13	16	2	.09	13	1	.04
23	24	1	.06	15	2	.08	13	1	.04
24	24	1	.06	15	2	.08	13	1	.04
25	24	1	.06	15	2	.08	13	1	.04
26	23	1	.06	15	2	.08	13	1	.04
27	23	1	.06	15	1	.04	13	1	.04
28	22	1	.06	15	1	.04	13	1	.04
29	22	1	.06	15	1	.04	13	1	.04
30	22	1	.06	14	1	.04	13	1	.04
31	22	1	.06	14	2	.08	---	---	---
TOTAL	885	---	5.60	536	---	2.75	381	---	2.11
YEAR	17533.8		1894.72						

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1992	319.80	1.40	0	1
NOVEMBER	402.00	3.13	0	3
DECEMBER	616.00	30.48	2	32
JANUARY 1993	1369.00	321.69	80	402
FEBRUARY	3068.00	511.19	280	791
MARCH	3253.00	264.80	211	476
APRIL	2297.00	66.31	37	103
MAY	2152.00	548.24	234	782
JUNE	2255.00	137.02	84	221
JULY	885.00	5.60	0	6
AUGUST	536.00	2.75	0	3
SEPTEMBER ...	381.00	2.11	0	2
TOTAL	17533.80	1894.72	928	2822

11527000 TRINITY RIVER NEAR BURNT RANCH, CA

LOCATION.--Lat 40°47'20", long 123°26'20", in S 1/2 sec.19, T.5 N., R.7 E., Trinity County, Hydrologic Unit 18010211, Trinity National Forest, on left bank 500 ft upstream from Cedar Flat Creek, 700 ft upstream from highway bridge at Cedar Flat, and 2.3 mi southeast of town of Burnt Ranch.

DRAINAGE AREA.--1,439 mi^2.

PERIOD OF RECORD.--October 1931 to September 1940, October 1956 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WDR CA-78-2: 1975(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 944.05 ft above sea level. Oct. 1, 1931, to Jan. 19, 1940, at site 2 mi upstream at different datum.

REMARKS.--Records fair, except from Oct. 1 to July 27, which are poor. Flow regulated since November 1960 by Clair Engle Lake (station 11525400), 64 mi upstream, and by transbasin diversion to Judge Francis Carr Powerplant (station 11525430) since April 1963. Small diversions upstream from station for irrigation. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,500 ft^3/s, Feb. 25, 1958, gage height, 30.50 ft, from rating curve extended above 40,000 ft^3/s on basis of slope-area measurement at gage height 43.2 ft; minimum, 82 ft^3/s, Aug. 31, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 43.2 ft, from floodmarks, discharge, 172,000 ft^3/s, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	2230	*17,400	*14.04	May 31	1315	12,600	12.36
Mar. 17	1215	16,100	13.57				

Minimum daily, 429 ft^3/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	569	1330	540	1430	e1780	1930	2830	e2700	6840	1370	879	603
2	605	1590	549	1240	e1690	1910	2610	e2550	4920	1370	887	584
3	590	1050	564	1060	e1610	2130	2610	e2350	3840	1330	898	587
4	579	741	539	973	e1690	2290	3010	e3050	3510	1370	861	605
5	579	646	529	918	e2000	2280	2900	e2750	3540	1350	849	603
6	576	602	554	887	e3700	2470	e2760	e2480	3190	1320	819	786
7	574	563	623	1280	e3500	2940	e2550	e2200	2960	1290	811	1190
8	574	544	698	1500	e3650	3300	e2400	e2050	2720	1270	798	696
9	575	521	1190	1380	e4300	3590	e2300	e1800	2580	1250	788	598
10	550	502	3390	1270	e3500	4250	e2600	e2000	2520	1240	774	597
11	510	493	3330	1140	e4000	4240	e2500	e2300	2380	1210	760	590
12	509	482	1860	1050	e3700	3780	e2800	e1900	2140	1180	727	589
13	507	477	1380	1020	e2800	3750	e2300	e1800	2030	1110	695	586
14	507	472	1160	1260	e2500	4190	e2600	e1890	2090	1080	718	584
15	510	470	1070	1470	e2200	4740	e2800	1770	2150	1040	717	585
16	491	465	1010	1750	e2040	5670	e3050	2050	1980	1020	714	586
17	462	465	1020	1750	2010	13700	e2750	2310	1890	1010	704	597
18	461	466	967	1610	2020	11300	e4200	2470	1960	1010	690	598
19	460	495	901	1540	2850	8130	e3800	2550	2100	1010	694	598
20	467	511	881	8950	5030	6070	e3700	3260	2160	1020	716	597
21	507	498	839	10300	4010	5080	e3350	2870	2050	986	684	595
22	539	813	810	8400	3310	4440	e3050	2180	1680	976	662	591
23	487	695	786	5490	3220	6140	e2900	2050	1520	1120	653	583
24	466	608	782	3650	3020	6120	e3100	2170	1470	1100	653	584
25	456	578	796	2780	2690	4700	e2950	2480	1520	993	623	578
26	453	556	807	2390	2410	3910	e2860	2740	1620	953	614	575
27	449	567	827	2270	2190	3470	e2780	4260	1600	936	609	504
28	448	594	954	2170	2030	3140	e2700	4540	1430	935	621	486
29	488	572	1040	2080	---	2910	e2500	3390	1350	934	651	455
30	667	558	1030	2020	---	2730	e2800	3990	1320	897	629	429
31	661	---	1260	e1900	---	2620	---	10000	---	874	619	---
TOTAL	16276	18924	32686	76928	79450	137920	86060	86900	73060	34554	22517	18139
MEAN	525	631	1054	2482	2837	4449	2869	2803	2435	1115	726	605
MAX	667	1590	3390	10300	5030	13700	4200	10000	6840	1370	898	1190
MIN	448	465	529	887	1610	1910	2300	1770	1320	874	609	429
AC-FT	32280	37540	64830	152600	157600	273600	170700	172400	144900	68540	44660	35980

e Estimated.

11527000 TRINITY RIVER NEAR BURNT RANCH, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1960, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	499	1192	1654	2936	5702	5569	5831	5674	3161	878	305	241
MAX	2732	4893	6426	6192	24270	10110	10090	11840	7076	2362	835	497
(WY)	1958	1938	1938	1958	1958	1938	1938	1958	1958	1958	1958	1958
MIN	138	209	253	311	831	2487	3319	1955	808	273	123	111
(WY)	1933	1937	1937	1937	1937	1935	1932	1939	1934	1934	1939	1932

SUMMARY STATISTICS	WATER YEARS 1932 - 1960		
ANNUAL MEAN	2784		
HIGHEST ANNUAL MEAN	6557		1958
LOWEST ANNUAL MEAN	1409		1939
HIGHEST DAILY MEAN	65600	Feb 19	1958
LOWEST DAILY MEAN	93	Sep 13	1939
ANNUAL SEVEN-DAY MINIMUM	95	Oct 1	1931
INSTANTANEOUS PEAK FLOW	81500	Feb 25	1958
INSTANTANEOUS PEAK STAGE	30.50	Feb 25	1958
ANNUAL RUNOFF (AC-FT)	2017000		
10 PERCENT EXCEEDS	7120		
50 PERCENT EXCEEDS	1240		
90 PERCENT EXCEEDS	198		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	472	1154	2192	2988	2851	3199	2368	1959	1432	675	434	401
MAX	804	3570	8745	10990	10190	13770	8146	6343	7006	1985	1087	734
(WY)	1980	1974	1965	1974	1983	1983	1974	1983	1983	1983	1983	1983
MIN	298	375	274	322	373	512	530	547	449	200	189	230
(WY)	1965	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1964

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1964 - 1993	
ANNUAL TOTAL	430747		683414			
ANNUAL MEAN	1177		1872		1672	
HIGHEST ANNUAL MEAN					4816	1983
LOWEST ANNUAL MEAN					372	1977
HIGHEST DAILY MEAN	7180	Apr 17	13700	Mar 17	52800	Dec 22 1964
LOWEST DAILY MEAN	448	Oct 28	429	Sep 30	165	Aug 24 1966
ANNUAL SEVEN-DAY MINIMUM	464	Oct 23	464	Oct 23	170	Aug 21 1966
INSTANTANEOUS PEAK FLOW			17400	Jan 20	78100	Dec 22 1964
INSTANTANEOUS PEAK STAGE			14.04	Jan 20	29.82	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	854400		1356000		1211000	
10 PERCENT EXCEEDS	2410		3700		3460	
50 PERCENT EXCEEDS	667		1290		946	
90 PERCENT EXCEEDS	505		535		334	

11528700 SOUTH FORK TRINITY RIVER BELOW HYAMPOM, CA

LOCATION.--Lat 40°39'00", long 123°29'35", in NW 1/4 SW 1/4 sec.10, T.3 N., R.6 E., Trinity County, Hydrologic Unit 18010212, Trinity National Forest, on left bank 0.3 mi downstream from Big Creek, 3.0 mi northwest (revised) of Hyampom, and 3.5 mi downstream from Hayfork Creek.

DRAINAGE AREA.--764 mi^2.

PERIOD OF RECORD.--October 1965 to current year.
SEDIMENT DATA: Water years 1967-70, 1981-82.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,211.37 ft above sea level.

REMARKS.--Records fair, except for Oct. 1 to July 26, which are poor. No regulation or diversion upstream from station. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,000 ft^3/s, Feb. 17, 1986, gage height, 25.47 ft, from rating curve extended above 15,000 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 28.00 ft, Jan. 26, 1983; minimum daily, 14 ft^3/s, Aug. 24, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 30.45 ft, from floodmarks, discharge, 88,000 ft^3/s, on basis of flood-routing study.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 10	2000	9,490	9.86	Mar. 17	Unknown	Unknown	Unknown
Jan. 20	1600	*47,000	*19.99				

Minimum daily, 25 ft^3/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	301	129	2850	2400	1740	2610	1900	4160	639	223	109
2	28	272	142	1830	2230	1770	2520	1870	3470	610	212	106
3	30	211	157	1330	2140	2300	2440	2040	2930	584	200	106
4	30	168	157	1070	2290	2540	2920	2180	2780	562	195	104
5	33	143	148	930	3670	2560	2930	1960	2890	538	186	101
6	33	126	163	854	4960	2920	2630	1880	2710	510	178	102
7	33	115	229	1430	4760	3460	2390	1780	2450	487	175	97
8	32	107	782	1970	5170	3770	2340	1700	2200	466	171	96
9	32	101	5040	1680	5450	4270	2410	1650	2030	449	168	96
10	30	95	6350	1400	4660	5220	2400	1630	1900	422	163	94
11	30	92	4680	1170	5240	4690	2250	1620	1760	404	162	92
12	30	92	2500	1010	4350	4010	2080	1750	1660	381	160	89
13	30	90	1580	1020	3600	3960	1930	1680	1570	371	160	88
14	30	89	1130	3060	3050	e3700	1790	1630	1490	361	156	87
15	30	88	896	3230	2680	e3900	1740	1560	1410	354	151	85
16	30	88	766	2920	2320	e5500	1660	1520	1340	346	151	87
17	30	88	743	2580	2130	e7200	2670	1480	1270	337	151	90
18	30	88	656	2240	2510	e8800	4810	1440	1210	326	149	94
19	30	109	564	2130	5520	e9700	3980	1450	1150	313	145	94
20	31	126	537	28400	6480	e8000	3400	1530	1100	304	165	94
21	37	142	523	18600	4450	e5000	3080	1480	1050	296	173	94
22	51	249	513	17100	3680	e3750	2780	1390	992	287	164	94
23	61	252	478	8510	3630	e3300	2700	1320	943	292	151	94
24	57	204	455	5280	3220	e4400	2730	1300	888	278	143	92
25	51	174	440	3810	2710	e5850	2540	1420	837	266	136	88
26	48	153	434	3260	2340	e5050	2440	1690	791	251	133	89
27	46	148	431	3060	2010	e4400	2280	2220	749	255	130	90
28	45	151	748	2970	1810	e3500	2150	2090	714	248	128	88
29	72	143	922	2830	---	e2850	2050	1870	687	244	123	85
30	229	135	810	2710	---	e2650	1990	2310	657	233	118	85
31	294	---	1880	2580	---	e2480	---	4670	---	230	114	---
TOTAL	1598	4340	34983	133814	99460	133240	76640	56010	49788	11644	4934	2810
MEAN	51.5	145	1128	4317	3552	4298	2555	1807	1660	376	159	93.7
MAX	294	301	6350	28400	6480	9700	4810	4670	4160	639	223	109
MIN	25	88	129	854	1810	1740	1660	1300	657	230	114	85
AC-FT	3170	8610	69390	265400	197300	264300	152000	111100	98750	23100	9790	5570

e Estimated.

11528700 SOUTH FORK TRINITY RIVER BELOW HYAMPOM, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	130	809	1924	3335	3177	3239	1913	981	454	176	89.0	77.9
MAX	351	3475	6355	11740	12770	8744	4989	2701	1660	390	227	185
(WY)	1980	1974	1984	1970	1986	1983	1982	1983	1993	1983	1983	1983
MIN	27.4	72.9	86.8	144	218	365	224	199	91.1	33.0	17.9	22.8
(WY)	1988	1988	1977	1977	1977	1977	1977	1977	1977	1977	1977	1987

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1966 - 1993	
ANNUAL TOTAL	186339		609261			
ANNUAL MEAN	509		1669		1351	
HIGHEST ANNUAL MEAN					3049	1983
LOWEST ANNUAL MEAN					131	1977
HIGHEST DAILY MEAN	6350	Dec 10	28400	Jan 20	59200	Jan 16 1974
LOWEST DAILY MEAN	23	Aug 31	25	Oct 1	14	Aug 24 1977
ANNUAL SEVEN-DAY MINIMUM	24	Aug 26	30	Oct 10	15	Aug 18 1977
INSTANTANEOUS PEAK FLOW			47000	Jan 20	75000	Feb 17 1986
INSTANTANEOUS PEAK STAGE			19.99	Jan 20	28.00	Jan 26 1983
ANNUAL RUNOFF (AC-FT)	369600		1208000		978900	
10 PERCENT EXCEEDS	1420		3970		3420	
50 PERCENT EXCEEDS	196		888		396	
90 PERCENT EXCEEDS	27		88		66	

11530000 TRINITY RIVER AT HOOPA, CA

LOCATION.--Lat 41°03'00", long 123°40'15", in SE 1/4 NW 1/4 sec.25, T.8 N., R.4 E., Humboldt County, Hydrologic Unit 18010211, in Hoopa Valley Indian Reservation, on left bank at Hoopa, 0.4 mi upstream from Supply Creek.
DRAINAGE AREA.--2,853 mi^2.

PERIOD OF RECORD.--October 1911 to January 1914, October 1916 to September 1918, October 1931 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Published as "near Hoopa" 1931-60.
SEDIMENT DATA: Water years 1960-79.

REVISED RECORDS.--WSP 1565: 1913. WDR CA-77-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 274.82 ft above sea level. Prior to October 1931, nonrecording gage at site 0.4 mi upstream at different datum. October 1931 to Dec. 22, 1964, water-stage recorder at site 2.5 mi upstream at datum 31.67 ft higher.

REMARKS.--Records fair, except for Oct. 1 to July 26, which are poor. Flow regulated since November 1960 by Clair Engle Lake (station 11525400) 84 mi upstream, and by transbasin diversion to Judge Francis Carr Powerplant (station 11525430) since April 1963. Small diversions upstream from station for irrigation. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 231,000 ft^3/s, Dec. 22, 1964, gage height, 57.0 ft, present site and datum, from floodmarks, from rating curve extended above 123,000 ft^3/s; minimum daily, 162 ft^3/s, Oct. 4, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	2315	*68,800	*34.01	Mar. 17	2100	41,000	28.01

Minimum daily, 605 ft^3/s, Oct. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	726	2190	903	8070	7740	7930	8150	8210	15500	2750	1450	891
2	780	2910	968	6110	7340	8300	8660	7810	12400	2750	1440	e855
3	798	2030	999	4700	7100	9300	8520	8870	10100	2650	1420	e850
4	771	1330	895	4060	7310	10000	10900	10100	9140	2660	1400	e835
5	756	1080	785	3570	9080	9910	11400	8270	9800	2610	1330	e820
6	755	977	938	3280	12300	10200	10100	6740	9300	2520	1320	e830
7	749	891	1160	4130	12000	11300	9060	6130	8640	2430	1280	e825
8	744	839	1940	6080	12100	12100	8730	5550	7830	2370	1270	e840
9	744	795	5630	5630	13800	12400	9270	5160	7210	2310	1240	e835
10	742	747	e10500	4960	12500	13700	9290	5350	6800	2260	1220	e845
11	680	709	e8500	4360	13100	13800	8890	6070	6380	2190	1210	e850
12	659	709	e4500	3880	12400	12600	8100	5930	5820	2110	1190	e835
13	655	696	e3200	3630	10900	12200	8020	5330	5420	2040	1120	e840
14	650	689	e2550	5560	9860	12800	8980	4810	5270	1960	1140	e830
15	649	677	e2400	7700	9040	14200	9340	4500	5200	1920	1140	e830
16	652	672	e2300	7860	8330	15500	9140	4610	4900	1860	1130	833
17	619	677	e2200	7390	7640	30100	10700	4890	4630	1820	1120	842
18	606	677	e2100	6570	7900	37100	16300	5080	4560	1800	1090	853
19	605	767	e2000	5940	10100	28500	14700	5120	4610	1780	1080	856
20	607	879	e1950	34100	16300	20700	12900	6010	4610	1770	1130	854
21	679	924	e1900	48000	13700	16400	11700	5880	4460	1740	1140	849
22	755	1990	e1830	41100	12000	13600	10800	4720	3940	1710	1090	839
23	705	1520	e1800	27100	12000	14200	10500	4280	3540	1850	1040	829
24	667	1240	e1800	17200	11300	18500	10900	4280	3330	1880	1020	811
25	637	1130	e1780	13000	10300	15100	10200	4560	3280	1740	996	807
26	628	1010	e1850	11100	9470	12300	9890	5190	3340	1650	941	801
27	619	982	e2300	10100	8770	10700	9440	8190	3300	1600	938	764
28	610	1030	e3500	9550	8210	9640	9090	8500	3050	1570	915	710
29	655	880	e3020	9060	---	8850	8960	6650	2870	1560	950	695
30	956	874	e4200	8640	---	8250	9270	6990	2770	1540	941	648
31	1340	---	5380	8220	---	7750	---	16600	---	1480	905	---
TOTAL	22198	32521	85778	340650	292590	437930	301900	200380	182000	62880	35596	24602
MEAN	716	1084	2767	10990	10450	14130	10060	6464	6067	2028	1148	820
MAX	1340	2910	10500	48000	16300	37100	16300	16600	15500	2750	1450	891
MIN	605	672	785	3280	7100	7750	8020	4280	2770	1480	905	648
AC-FT	44030	64510	170100	675700	580400	868600	598800	397500	361000	124700	70600	48800

e Estimated.

11530000 TRINITY RIVER AT HOOPA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1960, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	926	2578	6468	9239	11830	10400	10170	8663	4755	1635	650	508
MAX	5405	9589	28060	30140	50380	26370	19320	16700	9875	4265	1365	1248
(WY)	1951	1938	1956	1956	1958	1938	1938	1938	1953	1941	1953	1912
MIN	260	373	531	647	2433	3815	4790	3000	1378	466	249	213
(WY)	1933	1940	1937	1937	1937	1955	1944	1934	1934	1918	1934	1934

SUMMARY STATISTICS	WATER YEARS 1912 - 1960	
ANNUAL MEAN	5618	
HIGHEST ANNUAL MEAN	12270	1958
LOWEST ANNUAL MEAN	2630	1934
HIGHEST DAILY MEAN	158000	Dec 22 1955
LOWEST DAILY MEAN	162	Oct 4 1931
ANNUAL SEVEN-DAY MINIMUM	164	Oct 1 1931
INSTANTANEOUS PEAK FLOW	a190000	Dec 22 1955
INSTANTANEOUS PEAK STAGE	36.90	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	4070000	
10 PERCENT EXCEEDS	12700	
50 PERCENT EXCEEDS	3070	
90 PERCENT EXCEEDS	442	

a From reting curve extended above 56,000 ft^3/s.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	837	3369	7255	10100	9198	9644	6430	4260	2567	1153	700	628
MAX	1805	12900	29710	32090	28810	32240	16040	12020	8999	3233	1681	1309
(WY)	1980	1974	1965	1970	1986	1983	1983	1983	1983	1983	1983	1983
MIN	472	679	529	745	891	1608	1325	1204	746	338	270	336
(WY)	1988	1991	1977	1977	1977	1977	1977	1977	1977	1977	1977	1969

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1964 - 1993	
ANNUAL TOTAL	806219		2019025			
ANNUAL MEAN	2203		5532		4661	
HIGHEST ANNUAL MEAN					11350	1983
LOWEST ANNUAL MEAN					786	1977
HIGHEST DAILY MEAN	14700	Feb 22	48000	Jan 21	168000	Dec 22 1964
LOWEST DAILY MEAN	605	Oct 19	605	Oct 19	244	Aug 23 1977
ANNUAL SEVEN-DAY MINIMUM	627	Oct 14	627	Oct 14	246	Aug 18 1977
INSTANTANEOUS PEAK FLOW			68800	Jan 20	231000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			34.01	Jan 20	57.00	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	1599000		4005000		3376000	
10 PERCENT EXCEEDS	5250		12200		10700	
50 PERCENT EXCEEDS	1300		3300		2060	
90 PERCENT EXCEEDS	668		755		556	

11530500 KLAMATH RIVER NEAR KLAMATH, CA
(National Stream Quality Accounting Network Station)

LOCATION.--Lat 41°30'52", long 123°59'57", in SW 1/4, sec.13, T.13 N., R.2 E., Del Norte County, Hydrologic Unit 18010209, on right bank 0.2 mi upstream from Turwer Creek and 2.2 mi southeast of Klamath.
DRAINAGE AREA.--12,100 mi^2, approximately (not including Lost River or Lower Klameth Lake basins).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to December 1926 (published as "near Requa"), October 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.
REVISED RECORDS.--WSP 1285: 1951(P). WSP 1445: 1918-20. WDR CA-81-2: 1980.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is sea level. Prior to June 1926, nonrecording gage at site 2.6 mi upstream at different datum. Oct. 1, 1950, to Oct. 2, 1975, water-stage recorder at site 2.6 mi upstream at datum 5.60 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Medium and low flows considerably regulated by reservoirs and powerplants upstream from station and by transbasin (from Trinity River) diversion to Judge Francis Carr Powerplant (station 11525430) since April 1963. Large diversions for irrigation upstream from station. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 557,000 ft^3/s, Dec. 23, 1964, gage height, 55.3 ft, former datum, from floodmerks, from rating curve extended above 230,000 ft^3/s on basis of flood-routing study; minimum daily, 1,310 ft^3/s, Sept. 4, 1977.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 21	0330	*164,000	*25.77	Mar. 18	0530	148,000	24.80

Minimum daily, 2,530 ft^3/s, Oct. 18, 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3770	16700	4790	27200	18900	18600	39900	32800	63100	9620	4830	3680
2	2940	19400	4990	21700	17900	19300	42700	32900	54700	9450	4750	3660
3	2940	12100	5720	16900	17200	21800	45900	38900	45000	9240	4930	3860
4	2870	7550	5350	15300	17400	24900	58900	50900	41400	8930	4910	3860
5	2810	5690	4970	14700	19200	25100	60000	41800	44900	8740	4810	3920
6	2700	4860	4890	13700	26000	25100	52700	36600	44200	8440	4740	3910
7	2650	4430	6730	14500	26800	27900	46300	34900	40100	8140	4680	4110
8	2630	4110	10300	17200	26000	31100	43600	32400	36700	7900	4630	4570
9	2630	3860	32700	18000	29900	33800	48600	29700	32200	7660	4570	4170
10	2650	3630	34500	16400	29500	36900	51700	29400	28700	7450	4500	3950
11	2660	3450	46300	14600	32700	41400	49500	33000	25400	7220	4460	3920
12	2610	3350	28700	13100	34200	39200	44100	32300	22800	7000	4460	3880
13	2590	3270	19300	12200	28800	36700	39700	29200	21000	6830	4470	3850
14	2590	3190	14900	14300	24800	38900	37700	25700	20200	6620	4370	3790
15	2570	3130	12600	17900	21900	54100	37600	24000	19900	6460	4370	3790
16	2570	3090	11200	18700	19900	61700	36900	24000	19100	6360	4490	3810
17	2570	3070	11500	18600	18400	94200	40400	25700	17600	6190	4570	3820
18	2530	3060	11400	17200	18300	135000	57800	27500	17000	6090	4450	3880
19	2530	3370	10200	16200	21600	105000	56900	27300	17000	5970	4350	3890
20	2950	4090	10000	64100	36300	79000	50700	30200	16800	5880	4500	3870
21	3590	4590	11000	129000	35500	66100	45900	30300	16200	5800	4740	3820
22	3590	13900	11200	102000	31800	58500	43100	26800	14900	5740	4510	3790
23	3570	11600	10400	77400	31100	70500	41000	23700	13500	6010	4240	3720
24	4090	7830	9670	54400	30100	77200	42700	22900	12700	6260	3990	3680
25	4410	6330	9180	40400	26700	67600	40200	22500	12100	5900	3930	3660
26	4430	5700	8800	32100	23600	58900	38900	23500	11700	5540	3840	3620
27	8220	5410	8780	27700	21200	52700	36200	26000	11500	5350	3800	3590
28	8270	5660	13800	25000	19500	45700	33500	27700	11100	5190	3760	3550
29	5680	5560	17100	23000	---	41200	31800	25600	10400	5120	3760	3500
30	8500	5110	16500	21400	---	38100	33100	28200	9930	5050	3760	3440
31	15400	---	22300	20100	---	36000	---	53900	---	4920	3710	---
TOTAL	124510	187090	429770	935000	705200	1562200	1328000	950300	751830	211070	135880	114560
MEAN	4016	6236	13860	30160	25190	50390	44270	30650	25060	6809	4383	3819
MAX	15400	19400	46300	129000	36300	135000	60000	53900	63100	9620	4930	4570
MIN	2530	3060	4790	12200	17200	18600	31800	22500	9930	4920	3710	3440
AC-FT	247000	371100	852400	1855000	1399000	3099000	2634000	1885000	1491000	418700	269500	227200

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1962, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4987	11130	19480	27730	37540	27340	27710	23170	13830	5921	3383	3339
MAX	18950	30460	72580	83550	123200	53280	48860	37250	29580	12370	5871	5107
(WY)	1951	1921	1956	1953	1958	1957	1952	1952	1953	1953	1953	1912
MIN	2700	3502	4138	7454	6263	6916	6270	3975	2106	1731	1567	1860
(WY)	1920	1960	1960	1924	1920	1924	1924	1924	1924	1924	1918	1918

SUMMARY STATISTICS	WATER YEARS 1911 - 1962	
ANNUAL MEAN	17010	
HIGHEST ANNUAL MEAN	33360	1958
LOWEST ANNUAL MEAN	5156	1924
HIGHEST DAILY MEAN	378000	Dec 22 1955
LOWEST DAILY MEAN	1340	Jul 31 1924
ANNUAL SEVEN-DAY MINIMUM	1440	Jul 30 1924
INSTANTANEOUS PEAK FLOW	a425000	Dec 22 1955
INSTANTANEOUS PEAK STAGE	b49.7	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	12320000	
10 PERCENT EXCEEDS	37300	
50 PERCENT EXCEEDS	10200	
90 PERCENT EXCEEDS	2860	

a From rating curve extended above 140,000 ft^3/s on basis of flood-routing study.
b From floodmarks, site and datum then in use.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5048	15270	27840	33590	32290	32980	25990	18950	10790	4482	3056	3234
MAX	17830	55620	87770	97760	102700	82410	60400	40080	29570	12220	6599	5923
(WY)	1963	1974	1965	1970	1986	1983	1974	1983	1983	1983	1983	1983
MIN	2214	3236	3942	4212	4231	6954	5448	5638	3630	1782	1441	1977
(WY)	1992	1988	1977	1977	1977	1977	1977	1977	1977	1977	1977	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1963 - 1993	
ANNUAL TOTAL	2959580		7435410			
ANNUAL MEAN	8086		20370		17730	
HIGHEST ANNUAL MEAN					36100	1983
LOWEST ANNUAL MEAN					4036	1977
HIGHEST DAILY MEAN	55100	Feb 22	135000	Mar 18	420000	Dec 23 1964
LOWEST DAILY MEAN	1730	Aug 31	2530	Oct 18	1310	Sep 4 1977
ANNUAL SEVEN-DAY MINIMUM	1760	Aug 28	2560	Oct 13	1370	Aug 18 1977
INSTANTANEOUS PEAK FLOW			164000	Jan 21	557000	Dec 23 1964
INSTANTANEOUS PEAK STAGE			25.77	Jan 21	55.30	Dec 23 1964
ANNUAL RUNOFF (AC-FT)	5870000		14750000		12840000	
10 PERCENT EXCEEDS	16900		45300		38900	
50 PERCENT EXCEEDS	5610		13900		9660	
90 PERCENT EXCEEDS	1910		3630		2830	

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.
CHEMICAL DATA: Water years 1951 to current year.
BIOLOGICAL DATA: Water years 1975-81.
SPECIFIC CONDUCTANCE: Water years 1975-81.
WATER TEMPERATURE: Water years 1966-81.
SEDIMENT DATA: Water years 1955-56, 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981.
WATER TEMPERATURE: November 1965 to September 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
17...	1115	3070	191	8.1	10.5	0.70	765	10.6	95	K6	K1
JAN											
29...	1225	23000	142	8.0	7.5	13	769	11.2	93	K3	K8
MAR											
02...	1230	19400	148	8.0	7.0	6.2	766	11.5	94	K5	K2
MAY											
11...	1345	34400	116	8.0	12.5	12	757	9.6	91	K10	K8
JUL											
08...	1315	7890	145	8.2	19.0	0.40	759	8.8	95	K2	K1
SEP											
09...	1045	4170	180	8.2	20.0	0.50	760	8.4	93	K5	K2

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3
NOV										
17...	78	0	17	8.6	9.2	20	0.5	1.2	102	83
JAN										
29...	65	5	15	6.7	3.9	11	0.2	0.60	73	60
MAR										
02...	66	4	15	6.9	3.9	11	0.2	0.60	75	62
MAY										
11...	52	2	12	5.3	4.1	14	0.2	0.80	61	50
JUL										
08...	69	2	16	7.0	4.3	12	0.2	0.70	81	66
SEP										
09...	76	0	17	8.2	8.2	19	0.4	1.3	96	79

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
NOV										
17...	8.6	6.3	0.10	20	111	122	0.15	0.010	0.020	0.079
JAN										
29...	6.5	2.9	<0.10	15	95	87	0.13	--	<0.010	--
MAR										
02...	6.6	2.7	<0.10	16	91	89	0.12	--	0.030	--
MAY										
11...	6.7	1.7	<0.10	14	80	75	0.11	--	<0.010	--
JUL										
08...	6.3	2.5	<0.10	15	90	92	0.12	--	<0.010	--
SEP										
09...	8.3	3.7	0.10	18	111	112	0.15	--	<0.010	--

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)
NOV										
17...	0.081	0.020	0.010	0.20	0.050	0.050	0.030	0.030	<10	16
JAN										
29...	0.140	--	<0.010	<0.20	0.080	0.020	--	0.020	50	13
MAR										
02...	0.110	--	0.020	<0.20	0.040	0.010	--	0.010	--	--
MAY										
11...	<0.050	--	<0.010	<0.20	0.020	<0.010	--	0.010	30	24
JUL										
08...	<0.050	--	0.021	<0.20	0.020	0.010	--	0.010	--	--
SEP										
09...	<0.050	--	0.020	0.30	0.040	0.040	--	0.030	<10	16

DATE	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
NOV										
17...	<3	18	6	4	<10	3	<1	<1.0	120	<6
JAN										
29...	<3	50	<4	3	<10	3	<1	<1.0	90	<6
MAR										
02...	--	--	--	--	--	--	--	--	--	--
MAY										
11...	<3	47	<4	2	<10	2	<1	<1.0	64	<6
JUL										
08...	--	--	--	--	--	--	--	--	--	--
SEP										
09...	<3	12	<4	<1	<10	2	<1	<1.0	100	<6

DATE	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)
NOV										
17...	--	--	--	--	--	--	--	--	--	--
JAN										
29...	--	--	--	--	--	--	--	--	--	--
MAR										
02...	<0.6	<0.6	<0.6	<0.6	0.8	<0.6	0.7	<0.6	<0.02	0.07
MAY										
11...	--	--	--	--	--	--	--	--	--	--
JUL										
08...	--	--	--	--	--	--	--	--	--	--
SEP										
09...	<0.6	<0.6	<0.6	<0.6	2.0	<0.6	1.6	<0.6	0.21	0.08

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR											
02...*	1110	7.00	140	148	8.1	7.5	766	11.4	95	36	59
02...*	1130	9.60	270	146	8.1	7.0	766	10.9	89	53	42
02...*	1155	9.10	360	146	8.1	7.0	766	11.5	94	42	54
02...*	1220	10.2	450	146	8.1	7.0	766	10.5	86	28	76
02...*	1245	7.00	575	145	8.1	7.0	766	11.4	93	24	85
SEP											
08...*	1405	5.30	153	186	8.5	21.0	763	9.9	111	2	--
08...*	1425	6.60	250	186	8.5	21.0	763	9.9	111	3	--
08...*	1445	5.50	332	186	8.5	21.0	763	9.9	111	2	--
08...*	1505	5.80	425	186	8.5	21.0	763	9.9	111	2	--
08...*	1525	4.60	520	186	8.5	21.0	763	9.9	111	2	--

*Inatantaous streamflow at tha time of cross-sectional measurement: Mar. 2, 19,400 ft^3/s; Sept. 8, 4,560 ft^3/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV						
17...	1115	3070	10.5	2	17	100
JAN						
29...	1225	23000	7.5	229	14200	54
MAR						
02...	1200	19400	7.0	37	1940	63
02...	1230	19400	7.0	37	1940	57
MAY						
11...	1345	34400	12.5	71	6590	52
JUL						
08...	1315	7890	19.0	6	128	79
SEP						
08...	1450	4560	21.0	3	37	100
09...	1045	4170	20.0	1	11	--

11532500 SMITH RIVER NEAR CRESCENT CITY, CA
(National Stream-Quality Accounting Network Station)

LOCATION.--Lat 41°47'30", long 124°04'30", in SW 1/4 SW 1/4 sec. 9, T.16 N., R.1 E., Del Norte County, Hydrologic Unit 18010101, Redwood National Park, on right bank opposite mouth of Ceder Creek, 1.6 mi downstream from South Fork and 7 mi east of Crescent City.

DRAINAGE AREA.--614 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to current yeer. Monthly discharge only for some periods, published in WSP 1315-B.
REVISED RECORDS.--WSP 1929: Dreinege eree.

GAGE.--Water-stege recorder and crest-stage gege. Datum of gege is 79.26 ft above sea level. Prior to Oct. 9, 1991, et site 1.1 mi upstream at detum 10.35 ft higher.

REMARKS.--No estimated daily discherges. Records good. No reguletion or diversion upstream from stetion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 228,000 ft^3/s, Dec. 22, 1964, gage height, 48.5 ft, from floodmarks, from rating curve extended above 110,000 ft^3/s on basis of slope-area measurement at gage height 39.51 ft, former site and datum; minimum daily, 160 ft^3/s, Oct. 24, 25, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 36,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1100	*76,400	*25.02	Mar. 23	0815	38,300	19.72
Mar. 18	0145	39,500	19.92				

Minimum daily, 181 ft^3/s, Oct. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	13000	1470	12400	3940	3610	6080	4140	12800	1160	577	379
2	252	7940	1670	7760	3660	4640	9700	3880	10400	1120	560	371
3	235	3040	1780	5730	3660	9150	18700	8580	7380	1090	548	364
4	213	1800	1580	5710	3930	7920	19000	11400	6840	1060	535	359
5	207	1300	1430	6470	4610	6250	14000	7490	7200	1020	527	360
6	199	1020	1440	5650	4580	5850	9640	5960	6040	980	519	364
7	195	924	1850	5880	4270	5870	7890	5180	5290	950	518	359
8	195	835	7880	6400	4170	5620	8410	5040	4610	925	519	349
9	192	725	11700	6000	4820	5300	12300	4540	4040	900	509	343
10	191	645	18700	5000	4840	5370	15600	4260	3640	874	499	335
11	191	585	12600	4260	9320	5270	11600	4000	3260	852	497	334
12	190	538	9720	3740	10500	4690	8380	3540	2960	830	490	333
13	187	501	6410	3470	7200	4460	6610	3200	2720	815	483	325
14	185	471	4860	4890	5480	5330	5550	2950	2540	802	475	319
15	181	445	4110	5890	4560	15400	5580	2780	2410	797	499	320
16	183	425	3630	5520	3960	15900	5070	2710	2260	779	529	321
17	183	419	4230	5230	3570	26400	8020	2670	2120	762	488	323
18	183	403	3360	4470	3650	29100	11900	2640	2010	746	469	325
19	186	572	3420	5910	5900	14900	8900	2870	1910	728	473	324
20	213	773	4210	48800	7420	10400	6840	3360	1810	716	602	318
21	442	2420	5860	27300	6380	8240	6360	3300	1730	704	516	308
22	402	9090	5320	29800	6790	7350	6780	3480	1650	824	475	303
23	274	4000	4220	14400	7640	27300	8750	3050	1570	854	454	298
24	234	2770	3640	9680	6810	14000	10700	2830	1500	755	441	286
25	217	2140	3280	7660	5280	9260	9570	2770	1440	691	426	271
26	205	1750	2990	6570	4430	7090	9550	2810	1390	662	418	267
27	200	1900	4400	5900	3920	5770	7480	3150	1340	643	411	267
28	198	2170	11700	5530	3640	4900	5990	4480	1300	630	401	267
29	335	1910	9460	5150	---	4300	5140	4120	1240	633	390	267
30	2040	1640	7150	4730	---	3880	4670	7710	1200	618	385	267
31	2620	---	16000	4310	---	3740	---	14200	---	599	380	---
TOTAL	11146	66151	180570	280210	148930	287260	274760	143090	106600	25519	15013	9626
MEAN	360	2205	5825	9039	5319	9266	9159	4616	3553	823	484	321
MAX	2620	13000	18700	48800	10500	29100	19000	14200	12800	1160	602	379
MIN	181	403	1430	3470	3570	3610	4670	2640	1200	599	380	267
AC-FT	22110	131200	358200	555800	295400	569800	545000	283800	211400	50620	29780	19090

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1063	4710	7402	8399	7466	6569	4376	2752	1293	534	340	338
MAX	11770	23620	21470	21930	22680	15760	11960	7550	3876	1217	715	1471
(WY)	1951	1974	1982	1953	1986	1938	1982	1933	1937	1947	1947	1978
MIN	185	200	264	767	1076	1602	1406	835	524	336	226	198
(WY)	1965	1937	1977	1977	1977	1988	1977	1947	1987	1987	1959	1939

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1932 - 1993	
ANNUAL TOTAL	760392		1548875			
ANNUAL MEAN	2078		4243		3754	
HIGHEST ANNUAL MEAN					7027	1974
LOWEST ANNUAL MEAN					975	1977
HIGHEST DAILY MEAN	20100	Apr 17	48800	Jan 20	180000	Dec 22 1964
LOWEST DAILY MEAN	181	Oct 15	181	Oct 15	160	Oct 24 1964
ANNUAL SEVEN-DAY MINIMUM	184	Oct 13	184	Oct 13	163	Oct 20 1964
INSTANTANEOUS PEAK FLOW			76400	Jan 20	228000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			25.02	Jan 20	48.50	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	1508000		3072000		2720000	
10 PERCENT EXCEEDS	5340		9600		8800	
50 PERCENT EXCEEDS	976		2960		1570	
90 PERCENT EXCEEDS	208		314		265	

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to September 1993 (discontinued).
CHEMICAL DATA: Water years 1952 to September 1993 (discontinued).
BIOLOGICAL DATA: Water years 1978-81.
SPECIFIC CONDUCTANCE: Water years 1979-81.
WATER TEMPERATURE: Water years 1966-81.
SEDIMENT DATA: Water years 1955-56, November 1977 to September 1993 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1978 to September 1981.
WATER TEMPERATURE: October 1965 to September 1981.
SUSPENDED-SEDIMENT DISCHARGE: November 1977 to September 1979, October 1980 to September 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC 15...	1425	4050	104	8.0	7.5	1.0	765	12.3	102	K7	K2
MAR 17...	1055	20900	71	8.0	9.0	11	754	11.1	97	K19	K14
JUN 03...	1240	7250	88	8.1	11.0	1.2	760	11.5	105	K2	K1
SEP 22...	1005	303	140	8.1	15.0	0.20	760	9.5	94	K3	K1

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
DEC 15...	61	11	8.4	9.8	1.9	6	0.1	0.20	61	50
MAR 17...	36	3	2.8	7.0	1.3	7	0.1	0.20	40	33
JUN 03...	44	0	4.0	8.3	1.6	7	0.1	0.20	66	54
SEP 22...	68	0	7.3	12	2.4	7	0.1	0.30	87	72

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
DEC 15...	2.2	2.3	<0.10	13	55	68	0.08	0.010	<0.010	<0.050
MAR 17...	1.1	1.3	<0.10	11	45	44	0.06	--	<0.010	--
JUN 03...	1.4	1.6	<0.10	14	52	64	0.07	--	<0.010	--
SEP 22...	3.6	2.5	<0.10	13	80	84	0.11	--	<0.010	--

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)
DEC										
15...	<0.050	<0.010	<0.010	<0.20	0.020	0.020	<0.010	<0.010	10	6
MAR										
17...	<0.050	--	0.010	<0.20	0.030	<0.010	--	<0.010	40	4
JUN										
03...	<0.050	--	0.010	<0.20	0.010	0.020	--	0.010	20	4
SEP										
22...	<0.050	--	0.010	<0.20	<0.010	<0.010	--	<0.010	<10	8

DATE	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
DEC										
15...	<3	16	<4	4	<10	7	<1	<1.0	31	<6
MAR										
17...	<3	46	<4	2	<10	10	<1	<1.0	16	<6
JUN										
03...	<3	15	<4	<1	<10	8	<1	<1.0	22	<6
SEP										
22...	<3	<3	<4	<1	<10	5	<1	<1.0	41	<6

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR											
16...*	1545	7.00	47.0	77	8.0	9.5	758	12.2	107	24	70
16...*	1615	7.00	102	77	7.9	9.5	758	12.1	106	24	64
16...*	1645	8.80	152	77	7.9	9.5	758	12.2	107	44	38
16...*	1710	8.00	197	77	8.1	9.5	758	12.2	107	36	42
16...*	1740	5.50	287	78	8.0	9.5	758	12.2	107	23	62
SEP											
21...*	1515	1.08	44.0	140	8.4	16.5	760	9.8	101	3	--
21...*	1530	1.51	66.0	140	8.3	16.0	760	9.9	101	3	--
21...*	1545	1.73	89.0	141	8.3	16.0	760	9.9	101	1	--
21...*	1600	1.65	105	141	8.3	16.0	760	9.8	100	1	--
21...*	1615	1.33	120	141	8.3	16.5	760	9.8	101	1	--

* Instantaneous streamflow at the time of cross-sectional measurements: Mar. 16, 15,100 ft^3/s; Sep 21, 308 ft^3/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC						
15...	1425	4050	7.5	1	11	89
MAR						
16...	1640	15100	9.5	30	1220	54
17...	1055	20900	9.0	100	5640	43
JUN						
03...	1240	7250	11.0	4	78	73
SEP						
21...	1550	308	16.0	2	1.7	--
22...	1005	303	15.0	0	0.0	--

11532650 SMITH RIVER NEAR FORT DICK, CA

LOCATION.--Lat 41°52'51", long 124°08'07", in SW 1/4 NW 1/4 sec.12, T.17 N., R.1 W, Del Norte County, Hydrologic Unit 18010101, on right bank 10 ft upstream from bridge on U.S. Highway 101, 0.2 mi downstream from Hutsinpillar Creek, and 1.2 mi northeast of Fort Dick.

DRAINAGE AREA.--672 mi^2.

PERIOD OF RECORD.--October 1989 to current yeer. Records prior to October 1989 ere in files of the California Department of Water Resources.

GAGE.--Water-atage recorder. Datum of gage is sea level.

REMARKS.--Data is collected for flood-warning purposes only.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 34.12 ft, Jan. 8, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 30.39 ft, Jan. 20.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.76	13.67	21.79	16.78	---	---	22.16	20.09	16.97	16.77	16.76	16.67
2	13.83	13.76	21.44	17.92	---	---	20.09	18.78	16.77	16.63	17.85	16.76
3	13.83	13.74	17.92	16.38	---	---	18.78	18.04	16.73	16.62	19.77	17.85
4	13.74	13.71	16.38	15.72	---	---	18.54	18.04	16.90	16.73	19.56	18.45
5	13.71	13.70	15.72	15.34	---	---	18.92	18.54	17.33	16.90	18.45	17.93
6	13.70	13.67	15.34	15.10	---	---	18.76	18.22	17.33	17.10	17.93	17.86
7	13.68	13.65	15.10	15.05	---	---	18.54	18.22	17.10	16.93	17.98	17.83
8	13.65	13.64	15.06	14.88	---	---	18.72	18.52	17.06	16.91	17.88	17.66
9	13.64	13.64	14.88	14.76	---	---	18.69	18.23	17.43	17.06	17.66	17.56
10	13.65	13.64	14.76	14.66	---	---	18.23	17.69	17.69	17.21	17.70	17.58
11	13.67	13.64	14.66	14.58	---	---	17.69	17.27	20.79	17.69	17.75	17.38
12	13.64	13.62	14.58	14.51	20.82	18.95	17.27	16.97	20.79	19.38	17.38	17.16
13	13.63	13.62	14.51	14.46	19.29	18.15	16.97	16.84	19.38	18.24	17.18	17.04
14	13.62	13.60	14.46	14.40	18.15	17.50	18.52	16.92	18.24	17.56	19.14	17.04
15	13.60	13.59	14.40	14.36	17.50	17.08	18.61	18.08	17.56	17.11	21.55	19.14
16	13.63	13.60	14.36	14.34	17.08	16.86	18.23	18.05	17.11	16.81	21.70	21.00
17	13.63	13.62	14.34	14.34	17.40	17.05	18.20	17.77	16.81	16.60	26.35	21.70
18	13.65	13.62	14.34	14.31	17.31	16.95	17.77	17.35	16.85	16.60	26.43	22.76
19	13.66	13.64	14.97	14.31	16.95	16.72	21.76	17.21	19.56	16.85	22.76	20.53
20	13.81	13.65	15.02	14.85	17.93	16.72	30.39	21.76	19.51	18.50	20.53	19.58
21	14.52	13.81	21.33	14.77	18.40	17.93	26.11	23.04	18.77	18.20	19.58	18.72
22	14.51	14.10	22.33	18.08	18.36	17.62	26.61	22.60	18.79	18.60	20.24	18.40
23	14.10	13.86	---	---	17.62	17.11	22.60	20.45	19.20	18.65	26.28	20.24
24	13.86	13.79	---	---	17.11	16.80	20.45	19.29	19.13	18.20	22.83	20.31
25	13.79	13.75	---	---	16.80	16.57	19.29	18.60	18.20	17.53	20.31	19.12
26	13.75	13.73	---	---	16.57	16.39	18.60	18.17	17.53	17.11	19.12	18.33
27	13.73	13.72	---	---	18.78	16.37	18.17	17.89	17.11	16.82	18.33	18.29
28	13.73	13.72	---	---	21.60	18.78	17.89	17.72	16.82	16.67	---	---
29	14.38	13.72	---	---	20.71	19.66	17.72	17.47	---	---	17.20	17.03
30	16.49	14.38	---	---	19.66	19.22	17.47	17.23	---	---	17.03	16.78
31	16.78	16.40	---	---	23.21	19.52	17.23	16.97	---	---	17.09	16.69

11532650 SMITH RIVER NEAR FORT DICK, CA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	19.41	17.09	17.14	16.87	21.02	20.65	14.73	14.69	13.98	13.95	13.58	13.58
2	20.71	19.24	16.87	16.73	20.80	19.45	14.69	14.66	13.95	13.92	13.58	13.57
3	23.68	20.71	20.76	16.73	19.45	18.54	14.66	14.62	13.92	13.90	13.57	13.56
4	22.76	22.26	20.99	19.44	19.03	18.32	14.62	14.58	13.90	13.88	13.56	13.55
5	22.26	20.45	19.44	18.34	19.03	18.51	14.59	14.53	13.88	13.86	13.55	13.55
6	20.45	19.46	18.34	17.82	18.51	17.99	14.53	14.49	13.86	13.84	13.55	13.55
7	19.46	18.71	17.82	17.53	17.99	17.60	14.50	14.45	13.84	13.84	13.55	13.54
8	19.74	18.58	17.64	17.39	17.60	17.19	14.46	14.42	13.84	13.84	13.54	13.53
9	21.46	19.70	17.39	17.10	17.19	16.89	14.43	14.39	13.84	13.81	13.53	13.51
10	21.96	21.25	17.10	16.99	16.89	16.63	14.40	14.36	13.81	13.79	13.51	13.51
11	21.25	19.85	17.01	16.77	16.63	16.38	14.36	14.33	13.79	13.79	13.51	13.50
12	19.85	18.82	16.77	16.52	16.38	16.18	14.33	14.29	13.79	13.78	13.51	13.50
13	18.82	18.16	16.52	16.30	16.18	16.02	14.31	14.28	13.78	13.76	13.50	13.48
14	18.16	17.72	16.30	16.14	16.02	15.89	14.30	14.27	13.76	13.75	13.48	13.47
15	17.95	17.72	16.14	16.02	15.89	15.79	14.28	14.25	13.82	13.75	13.47	13.47
16	17.77	17.45	16.04	15.95	15.79	15.65	14.28	14.24	13.88	13.82	13.47	13.47
17	20.21	17.49	16.00	15.93	15.65	15.56	14.24	14.22	13.84	13.77	13.47	13.46
18	20.56	20.07	16.00	15.89	15.56	15.47	14.22	14.19	13.77	13.73	13.46	13.46
19	20.07	18.87	16.57	15.88	15.47	15.39	14.19	14.17	13.78	13.72	13.47	13.46
20	18.87	18.20	16.78	16.27	15.39	15.31	14.17	14.15	14.00	13.78	13.48	13.45
21	18.20	18.14	16.66	16.27	15.31	15.23	14.15	14.13	13.96	13.84	13.45	13.44
22	18.66	18.17	16.71	16.43	15.23	15.15	14.40	14.15	13.84	13.78	13.44	13.43
23	19.99	18.63	16.43	16.19	15.15	15.08	14.40	14.34	13.78	13.74	13.43	13.42
24	20.17	19.86	16.20	16.06	15.08	15.02	14.34	14.19	13.74	13.70	13.42	13.41
25	20.06	19.35	16.17	16.05	15.02	14.97	14.19	14.12	13.70	13.67	13.41	13.41
26	20.07	19.29	16.24	16.12	14.97	14.92	14.12	14.08	13.67	13.65	13.41	13.41
27	19.29	18.43	16.57	16.24	14.92	14.87	14.08	14.05	13.66	13.64	13.41	13.40
28	18.43	17.81	17.36	16.57	14.87	14.82	14.05	14.03	13.64	13.61	13.41	13.40
29	17.81	17.47	17.25	16.92	14.82	14.77	14.05	14.03	13.61	13.60	13.41	13.40
30	17.47	17.14	21.31	16.95	14.77	14.73	14.05	14.02	13.60	13.59	13.41	13.41
31	---	---	21.92	20.64	---	---	14.02	13.98	13.59	13.58	---	---

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the U.S. Geological Survey collects limited streamflow data at sites other then stream-geging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low- or flood-flow analyses, depending on the type of data collected.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this volume made at low-flow partial-record stations are given in the following table. The column headed "Period of record" shows the water years in which measurements were made at the same or practically the same site.

Discharge measurements made at low-flow partial-record stations during water year 1993

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Klamath River basin				
11525520	Deadwood Creek at Lewiston, CA	Lat 40°43'02", long 122°48'04", in SW 1/4 NW 1/4 sec.17, T.33 N., R.8 W., Trinity County, 300 ft upstream from mouth and 0.7 mi northeast of Lewiston.	9.10	a1965-75, 1976-93	2-03-93	9.20
					3-03-93	13.8
					4-07-93	9.37
					5-06-93	5.18
					6-02-93	46.5

a Published as a miscellaneous measurement.
b Base flow.

Special study and miscellaneous sites

Discharge measurements in the following table were made at special study and miscellaneous sites throughout the area covered by this volume.

Discharge measurements made at special study and miscellaneous sites during water year 1993

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water year)	Measurements	
					Date	Discharge (ft^3/s)
Salinas River basin						
11151870 Arroyo Seco near Greenfield, CA	Salinas River	Lat 36°14'15", long 121°28'50", in NE 1/4 SE 1/4 sec.36, T.19 S., R.4 E., Monterey County, Hydrologic Unit 18060005, on right bank 0.6 mi downstream from Rocky Creek and 14.5 mi southwest of Greenfield.	113	1962-92	10-02-92	a.79
					11-05-92	5.76
					12-01-92	6.56
					12-30-92	343
					1-04-93	160
					2-01-93	320
					2-19-93	2,270
					3-01-93	873
					4-01-93	208
					5-04-93	a86.9
Frenchmens Creek basin						
11162635 Frenchmans Creek near Half Moon Bay, CA		Lat 37°29'00", long 122°26'42", in Corral de Tierra (Vasquez) Grant, San Mateo County, Hydrologic Unit 18050006, at bridge on State Highway 1, 0.4 mi upstream from mouth, and 1.7 mi northwest of city of Half Moon Bay.	4.17	1977, 1988-92	10-14-92	a.21
					11-19-92	.27
					12-15-92	1.28
					1-13-93	21.1
					2-22-93	12.8
					3-18-93	8.28
					4-26-93	2.76
Purisima Creek basin						
Purisima Creek		Lat 37°24'09", long 122°24'41", in Canada de Verde y Arroyo de la Purisima Grant, San Mateo County, Hydrologic Unit 18050006, at bridge on Verde Road, 0.5 mi northwest of Lobitos, and 4 mi south of Half Moon Bay.	8.35	1988-92	10-14-92	a.23
					11-19-92	.64
					12-15-92	1.83
					1-20-93	46.0
					2-23-93	28.5
					3-18-93	7.57
Pescadero Creek basin						
Butano Creek	Pescadero Creek	Lat 37°15'00", long 122°23'41", in Butano Grant, San Mateo County, Hydrologic Unit 18050006, at bridge on Pescadero Road near intersection of Bean Hollow and Pescadero Roads, 1.2 mi east of State Highway 1, and 0.7 mi southwest of Pescadero.	20.3	1988-92	10-13-92	a.08
					12-14-92	7.58
					02-22-93	92.6
					03-17-93	32.8
Pilarcitos Creek basin						
Arroyo Leon	Pilarcitos Creek	Lat 37°27'44", long 122°25'32", in Miramontes Grant, San Mateo County, Hydrologic Unit 18050006, at bridge at entrance to Cemetery, at east end of Half Moon Bay city limits, and 0.2 mi upstream from mouth.	8.52	1988-92	10-14-92	0
					11-18-92	.03
					12-14-92	.86
					1-19-93	37.8
					2-23-93	58.6
					3-18-93	6.37
					4-26-93	.03

a No measurable precipitation had fallen for 10 days prior to discharge measurement.

Diacharge meaaurements made at speciel study end miscellaneous sites during water year 1993--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water year)	Measurements Date	Measurements Discharge (ft^3/s)
		Alameda Creek Basin				
11177200 Vallecitos Creek	Arroyo de la Laguna	Lat 37°35'42", long 121°52'51", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank at culvert on Sunol Road, 700 ft upstream from mouth, and 0.3 mi east of Sunol.	7.48	1975-76, 1977-93	10-15-92	34.1
					1-07-93	3.11
					3-12-93	2.36
					4-29-93	1.18
					6-15-93	3.36
					8-20-93	1.48

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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